Pediatric Nutrition (PedNSS)

Surveillance System

Summary of 2005 Data

South Dakota Department of Health February 2007

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Pediatric Nutrition Surveillance System (PedNSS) Summary 2005

Information on the health of a population is essential for assessing health needs and planning programs to address those needs. Surveillance is the process of measuring specific health indicators in a given population on a continuous basis, allowing for the evaluation of a population over time.

This report provides a summary of the nutritional data collected in South Dakota through the Pediatric Nutrition Surveillance System (PedNSS) for the calendar year of 2005. PedNSS is a program of the Centers for Disease Control and Prevention (CDC) and was started in 1973. The first year of statewide data collection for South Dakota was 1995. Currently, nearly all the states and territories participate in PedNSS.

The data was obtained by using the records of infants and children participating in the South Dakota Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). Data is available by clinic, county, region and state. Cheyenne River, Rosebud Sioux and Standing Rock Tribal WIC Programs data are not included in this report.

Data is presented in this report for the state as a whole, by regions and by county for each of the six nutrition indicators:

- Birth weight

Low birth weight (less than 2,500 grams or 5.5 pounds) High birth weight (over 4,000 grams or 8.8 pounds)

- Short stature (low height-for-age)
- Underweight (low weight-for-height and low BMI-for-age)
- Overweight (high weight-for-height and high BMI-for-age)
- Anemia
- Breastfeeding

Ever breastfed
Breastfed at least 6 months
Breastfed at least 12 months

Individual clinics and counties with 100 or more individual children that could be analyzed are also reported separately. All clinics in a county are reported in county totals. All clinics statewide are reported in regional and state totals.

Data Collection and Reporting Changes

In 2004, the three Sioux Falls clinics; Downtown, Eastside and Westside, were consolidated into one. The Sioux Falls clinic data reflected in the tables of this report have been prorated to provide comparative three-year data.

Comparison of Data

PedNSS data can be collected in a variety of populations including WIC, Head Start, and Well Child Clinics (MCH). This report represents only infants and children participating in the WIC program of the South Dakota Department of Health. Care must be taken when comparing PedNSS data between states, as data is not always collected from identical populations. Care must also be taken when comparing the data in written reports before and after the recent PedNSS program changes in 2001. Data presented

in the main body of the report, including trend data, reflects the updated analysis of PedNSS.

In calendar year 2005, WIC served an average of 5,116 infants per month. This would indicate that approximately 45 percent of the total resident births, 11,466, in South Dakota were infants on WIC. The percentage of children varies greatly by county. WIC participants' income qualify if they are at or below 185 percent of the federal poverty level and have been determined to be at nutritional risk. WIC Participants may also income qualify if they participate in various Social Services programs such as Medicaid, TANF, and Food Stamps. Federal Poverty levels may not be the same as the 185 percent poverty level determined for the WIC Program.

Limitations of Data

This is the eleventh year that PedNSS data has been reported for South Dakota. Overall, the quality of the data is very good, but some sites may have more errors than others. Biologically Implausible Values (BIV) have a 1/1000 chance of being true data and are therefore considered to be an error. BIV's were not included in the data analysis.

The population of some counties is very small. All reported counties and clinics must have had at least 100 participants to have data analyzed. Only the total number of records analyzed and the percent of records with values that fell within the criteria were given for each indicator with at least 100 usable records. Data from counties and clinics with fewer than 100 records were not provided in this report as small numbers do not produce stable rates. The data used to compile this report consist of one unduplicated record per indicator per child.

When applicable, confidence intervals are given along with the rate of incidence for each county as well as for the state rate. This interval is based on the particular rate's standard error. The standard error defines a percentage's variability and is also used in calculating a confidence interval that can determine the actual variance of a percentage 95 percent of the time. That is, an interval in which a particular percentage will fall 95 percent of the time. The standard error takes into account the size of the sample being surveyed.

By applying the following formulas the standard error and the 95 percent confidence interval can be computed for the percent of respondents reporting each condition in the given period of time.

95 % Confidence Interval:

Percent ± (1.645 * Standard Error)

Standard Error

Percent / Square Root of the number of respondents reporting the condition (This produces an estimate of the standard error)

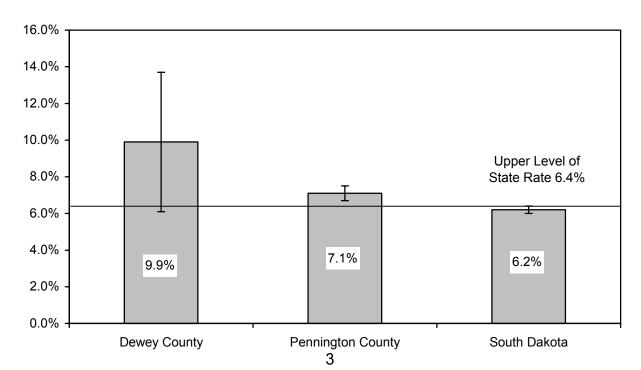
For example: the three-year PedNSS data, 2003-2005, indicates that 6.2 percent of the state's PedNSS children were short stature (low height-for-age) children. This was based on roughly 3,702 records (59,707 x .062) that indicated the children were short stature. An estimate of the standard error for the percent of short stature PedNSS

children can be made by dividing the percent of children reported with short stature (6.2) by the square root of the number of short stature PedNSS children (Square Root of $3,702 \cong 60.8$). This gives us an estimated standard error of 0.102 percent (6.2/60.8). Using the estimated standard error in the formula above the 95 percent confidence interval for the percent of short stature PedNSS children in the state for the three-year period can be calculated. Following this formula, we compute the 95 percent confidence interval for the state's rate of short stature children to be from 6.0 to 6.4 percent (6.2 \pm 0.2).

Confidence intervals are useful where rates appear to be different, but the differences are not necessarily statistically significant. For example, in Dewey County there were 18 records of the 181 (181 x .099) analyzed that indicated the child was short stature for the three years 2003-2005. This gave a rate of 9.9 percent, which appears to be well above the state's rate of 6.2 percent. However, after computing the standard error, which takes into account the relatively few records in the county, we find that the 95 percent confidence interval is 3.8 percent. This makes the 95 percent confidence interval from 6.1 to 13.7 percent. Since the county interval overlaps the state's interval (6.0 to 6.4 percent), the differences are not statistically significant. On the other hand, compared to Dewey County, Pennington County had a lower rate, 7.1 percent, but since there were more records, 828 of the 11,661 (11,661 x .071) analyzed that indicated short stature children, the 95 percent confidence interval is smaller (0.4 percent). Since Pennington County's confidence interval (6.7 to 7.5 percent) does not overlap the state's interval, the difference is statistically significant. The data used in these examples are from Table 7, page 25.

The three-year data, provided in the tables, for the clinics, counties and regions that are significantly worse than the state wide values for that indicator are shaded to indicate these values are worse at the 0.05 level of confidence.

Figure 1
Using Confidence Intervals to Compare Data
Short Stature, 2003-2005 PedNSS Population



Demographic Data

A total of 31,983 records for 20,583 individual children are included in the 2005 analysis. This represents the total records submitted, including those records later rejected because of critical errors, missing data, biologically implausible values and duplicate entries for a given individual.

After these records were removed, there were:

- 5,033 unique records analyzed for low and high birth weight babies (biologically implausible values that were excluded from analysis were birth weights less than 250 grams and those greater than 6,000 grams);
- 19,996 records analyzed for short stature, underweight and overweight children;
- 14,302 records analyzed for low hemoglobin; and
- 5,103 records analyzed for ever breastfeeding,
- 3.035 for breastfed at least 6 months and
- 2.294 for breastfed at least 12 months.

The racial/ethnic composition of South Dakota's PedNSS population as compared to the composition of the state as a whole is shown in Table 1. The Summary of Indicators (Table 2) shows the number of visits and individuals served, age distribution, race/ethnicity, program composition, and prevalence of low/high and abnormal values. The risk of infant mortality and other pediatric health outcomes may vary between populations.

Table 1

Race/Ethnicity	2005 PedNSS Population	2000 SD Population (Census)*
White	67.7%	88.7%
Black	3.1%	0.8%
American Indian or Alaskan Native	28.0%	9.0%
Asian or Pacific Islander	1.2%	0.8%
All Other/Unknown	0.0%	0.7%
Total	100.0%	100.0%

^{*} From the U.S. Census Bureau Website: http://www.census.gov
Multiple race categories were collapsed into most common minority status.

Summary of Indicators

Table 2

Pediatric Nutrition Surveillance System Summary of Indicators Reporting Period 01/01/2005 to 12/31/2005

1. Total Records	Total Records (All Visits)	Individual Children
	31,983	20,583

2. Age Distribution	Age	Number	Percent	
	0-5 Months	5,129	24.9%	
	6-11 Months	3,150	15.3%	
	12-23 Months	3,699	18.0%	
	24-35 Months	3,201	15.6%	
	3-4 Years	5,404	26.3%	

3. Race/Ethnicity	Race	Number	Percent
	White	13,935	67.7%
	Black	640	3.1%
	American Indian or Alaskan Native	5,756	28.0%
	Asian or Pacific Islander	250	1.2%
	All Other/Unknown	0	0.0%

4. Program Composition	Program	Number	Percent
	WIC	20,583	100%
	EPSDT	0	0.0%
	Medical Attention	0	0.0%
	Well Child (MCH)	0	0.0%
	Head Start	0	0.0%
	School Entrance	0	0.0%
	All Other	0	0.0%

Summary of Indicators

Table 2 (Continued)

Pediatric Nutrition Surveillance System Summary of Indicators Reporting Period 01/01/2005 to 12/31/2005

5. Prevalence of Low, High and Abnormal Values	Indicators	Individual Children	Percent
	Birth Weight		
	Low < 2,500 grams (5.5 pounds)	5,033	7.7
	High > 4,000 grams (8.8 pounds)	5,033	8.2
	Height and Weight		
	Short Stature < 5th Percentile	19,996	6.0
	Short Stature < 10th Percentile	19,996	10.4
	Underweight < 5th Percentile	19,996	3.2
	Underweight < 10th Percentile	19,996	5.6
	Overweight ≥ 95th Percentile (0-5 years)	19,996	13.6
	Overweight ≥2 years Old		
	Overweight 85th-< 95th Percentile	8,431	18.1
	Overweight ≥ 95th Percentile	8,431	13.9
	Anemia		
	Low Hemoglobin and/or Hematocrit	14,302	8.6
	Breastfeeding		
	Ever Breastfed	5,103	57.6
	Breastfed At Least 6 Months	3,035	21.7
	Breastfed At Least 12 Months	2,294	11.5

Overview of PedNSS Indicator Change

Indicators	Year 2005 (SD) 2004 (US)	Year 2004 (SD) 2003 (US)	Percent Change
Birth Weight Low			
South Dakota	7.7%	7.9%	-2.5%
United States	9.3%	9.1%	+2.2%
High South Dakota	8.2%	8.8%	-6.8%
United States	6.8%	7.3%	-6.8%
Short Stature			
South Dakota	6.0%	6.4%	-6.3%
United States	6.4%	6.2%	+3.2%
Underweight and Overweight (Ages 0 to 5 years))		
Underweight			
South Dakota	3.2%	3.1%	+3.2%
United States Overweight	4.7%	5.2%	-9.6%
South Dakota	13.6%	14.1%	-3.5%
United States	14.1%	13.6%	+3.7%
Overweight and At Risk of Overweight (Ages 2 t	to 5 years)		
At Risk of Overweight			
South Dakota	18.1%	18.1%	0.0%
United States	16.1%	15.7%	+2.5%
Overweight South Dakota	13.9%	13.9%	0.0%
United States	14.8%	14.7%	+0.7%
Anemia			
South Dakota	8.6%	8.4%	+2.4%
United States	13.7%	12.8%	+7.0%
Breastfeeding			
Ever Breastfed			
South Dakota	57.6%	56.8%	+1.4%
United States	56.1%	53.2%	+5.5%
At Least 6 Months South Dakota	21.7%	19.4%	+11.9%
United States	23.4%	21.5%	+8.8%
At Least 12 Months	20.770	21.070	. 0.0 /0
South Dakota	11.5%	12.0%	-4.2%
United States	17.6%	13.6%	+29.4%

Birth Weight

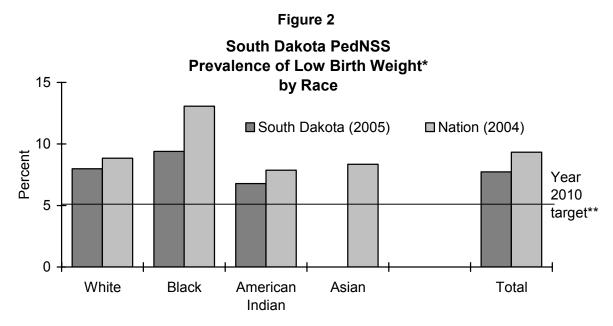
Low Birth Weight

The system allows for analysis of low and high birth weight. Low birth weight is defined as a birth weight below 2,500 grams (or 5.5 pounds) and is a strong indicator of an increased risk of neonatal mortality. For infants weighing 2,500 grams or less, mortality rates increase rapidly with decreasing birth weights.

The Healthy People 2010 Goal: Low birth rate of 5.0 percent or less.

The South Dakota PedNSS population had a low birth weight rate of 7.7 percent in 2005, down from 7.9 percent in 2004. The South Dakota PedNSS population had a low birth weight rate of 7.9 percent over the three-year period 2003-2005. The United States PedNSS population had a low birth weight rate of 9.3 percent in calendar year 2004.

Low birth weight is a nutrition indicator of the PedNSS system that is also collected by other means in this state. The South Dakota Department of Health, Office of Data, Statistics and Vital Records, collects birth weight information from birth certificates. Birth records for calendar year 2005 show that 6.6 percent of live births in South Dakota were low birth weight births.



- * < 2500 grams, among infants born during the reporting period.
- ** Reduce low birthweight to 5% of live births.

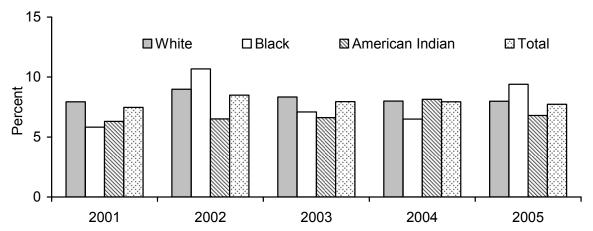
There are many risk factors that are known to potentially cause low birth weight and intrauterine growth retardation, although determining specific causes of low birth weight in segments of the population is difficult. Risk factors associated with low birth weight include: demographics (maternal age, marital status, ethnicity, education, and income), medical risks existing before pregnancy (weight status, obstetric history, parity and congenital anomalies), medical risks existing in current pregnancy (pregnancy induced hypertension, multiple pregnancy, poor weight gain), and environmental/behavioral factors (smoking, substance abuse, low socio-economic status, and poor nutrition).

Figure 3

South Dakota PedNSS

Trends in Prevalence of Low Birth Weight*

by Race



* < 2500 grams, among infants born during the reporting period.
 Year 2010 target: Reduce low birthweight to 5% of live births

The percentage of low birth weight varied by race in South Dakota's 2005 PedNSS population. The rates were:

- 8.0 percent for whites
- 9.4 percent for blacks
- 6.8 percent for American Indian and Alaskan Natives.

High Birth Weight

High birth weight is defined as a birth weight higher than 4,000 grams (or 8.8 pounds) and may also be called Large for Gestational Age (LGA). For infants weighing 4,000 grams or more, mortality rates are higher than for infants weighing between 3,000 and 4,000 grams (6.6 and 8.8 pounds).

Large for Gestational Age may be a result of maternal diabetes (which may or may not have been diagnosed before or during pregnancy) and may result in obesity in childhood that could extend into adult life. Very large infants have a higher incidence of birth injuries and congenital anomalies (especially heart disease) and developmental and intellectual retardation. When large for gestational age occurs with pre-term birth, the mortality risk is higher than when either exists alone.

The South Dakota PedNSS population had a high birth weight rate of 8.2 percent in 2005, down from 8.8 percent in 2004. The South Dakota PedNSS population had a high birth weight rate of 8.8 percent over the three-year period 2003-2005. The United States PedNSS population had a high birth weight rate of 6.8 percent in calendar year 2004.

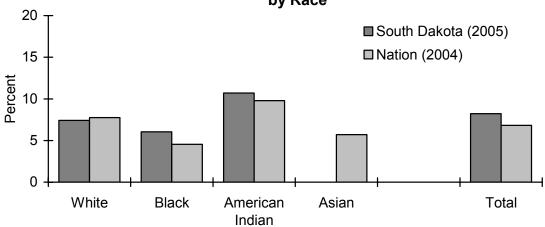
Birth records for calendar year 2005 show that 9.2 percent of live births in South Dakota were high birth weight births.

Figure 4

South Dakota PedNSS

Prevelence of High Birth Weight*

by Race

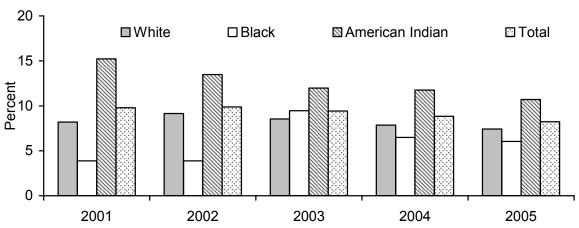


* >4000 grams, among infants born during the reporting period.

Figure 5

South Dakota PedNSS

Trends in Prevelence of High Birth Weight*
by Race



* >4000 grams, among infants born during the reporting period.

Table 3

Pediatric Nutrition Surveillance System
Low Birth Weight

Reporting Period 01/01/2005 to 12/31/2005

	<u> </u>	2005 Data		Three Y	ear Data (20	03-2005)
County	Lov	Birth Weig	ht (1)		v Birth Weigl	
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
	Records	LBW	Interval (±)	Records	LBW	Interval (±)
Aurora	10	*	*	35	*	*
Plankinton	10	*	*	35	*	*
Beadle	111	7.2%	4.2%	332	9.3%	2.8%
Huron	111	7.2%	4.2%	332	9.3%	2.8%
Bennett	42	*	*	129	6.2%	3.6%
Martin	42	*	*	129	6.2%	3.6%
Bon Homme	40	*	*	96	*	*
Tyndall	40	*	*	96	*	*
Brookings	136	6.6%	3.6%	382	7.1%	2.2%
Brookings	136	6.6%	3.6%	382	7.1%	2.2%
Brown	184	2.7%	2.0%	584	7.4%	1.9%
Aberdeen	184	2.7%	2.0%	584	7.4%	1.9%
Brule	34	*	*	72	*	*
Chamberlain	28	*	*	58	*	*
Kimball	6	*	*	14	*	*
Buffalo	45	*	*	152	8.6%	3.9%
Ft. Thompson	45	*	*	152	8.6%	3.9%
Butte	76	*	*	217	7.8%	3.1%
Belle Fourche	67	*	*	194	8.2%	3.4%
Newell	9	*	*	23	*	*
Charles Mix	97	*	*	326	6.1%	2.3%
Lake Andes	25	*	*	89	*	*
Platte	18	*	*	36	*	*
Wagner	54	*	*	201	5.0%	2.6%
Clark	10	*	*	38	*	*
Clark	10		*	38	*	
Clay	68	*	*	200	4.0%	2.3%
Vermillion	68			200	4.0%	2.3%
Codington	187	10.7%	3.9%	547	10.2%	2.2%
Watertown	187	10.7%	3.9%	547	10.2%	2.2%
Corson	3	*	*	6	*	*
McLaughlin	3	*	*	6	*	*
Custer	21	*	*	70 70	*	*
Custer	21			70		
Davison	150	4.7%	2.9%	424	5.4%	1.9%
Mitchell	150	4.7%	2.9%	424	5.4%	1.9%
Day	37	*	*	90	*	*
Webster	37	*	*	90	*	*
Deuel	12	*	*	42	*	*
Clear Lake	12	*	*	42	*	*

⁽¹⁾ Birth weights less than 2,500 grams; excludes birth weights less than 250 grams.

Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Table 3 (Continued)

Pediatric Nutrition Surveillance System Low Birth Weight Reporting Period 01/01/2005 to 12/31/2005

County	Low	2005 Data Birth Weig	ht (1)	Three Year Data (2003-2009 Low Birth Weight (1)		
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
Cililic	Records	LBW	Interval (±)	Records	LBW	Interval (±)
Dewey	14	*	*	48	*	*
Isabel	6	*	*	15	*	*
Timber Lake	8	*	*	33	*	*
Douglas	6	*	*	32	*	*
Armour	6	*	*	32	*	*
Edmunds	7	*	*	28	*	*
Bowdle	4	*	*	17	*	*
Ipswich	3	*	*	11	*	*
Fall River	36	*	*	137	7.3%	3.8%
Hot Springs	36	*	*	137	7.3%	3.8%
Faulk	5	*	*	19	*	*
Faulkton	5	*	*	19	*	*
Grant	44	*	*	117	9.4%	4.7%
Milbank	44	*	*	117	9.4%	4.7%
Gregory	25	*	*	74	*	*
Bonesteel	#	*	*	17	*	*
Burke	#	*	*	57	*	*
Haakon	4	*	*	17	*	*
Philip	4	*	*	17	*	*
Hamlin	27	*	*	95	*	*
Hayti	27	*	*	95	*	*
Hand	7	*	*	42	*	*
Miller	7	*	*	42	*	*
Hanson	13	*	*	45	*	*
Alexandria	13	*	*	45	*	*
Harding	3	*	*	8	*	*
Buffalo	3	*	*	8	*	*
Hughes	104	3.8%	3.1%	312	5.4%	2.2%
Pierre	104	3.8%	3.1%	312	5.4%	2.2%
Hutchinson	24	*	*	70	*	*
Freeman	13	*	*	35	*	*
Parkston	11	*	*	35	*	*
Hyde	8	*	*	22	*	*
Highmore	8	*	*	22	*	*
Jackson	46	*	*	125	8.8%	4.4%
Kadoka	7	*	*	27	*	*
Wanblee	39	*	*	98	*	*
Jerauld	9	*	*	28	*	*
Wessington Springs	9	*	*	28	*	*
Jones	7	*	*	23	*	*
Murdo	7	*	*	23	*	*

⁽¹⁾ Birth weights less than 2,500 grams; excludes birth weights less than 250 grams.

* Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

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Table 3 (Continued)

Pediatric Nutrition Surveillance System Low Birth Weight Reporting Period 01/01/2005 to 12/31/2005

County	Low	2005 Data Low Birth Weight (1)			Three Year Data (2003-2005 Low Birth Weight (1)		
Clinic	Total	Percent	Confidence	Total	Percent	Confidence	
	Records	LBW	Interval (±)	Records	LBW	Interval (±)	
Kingsbury	7	*	*	18	*	*	
De Smet	7	*	*	18	*	*	
Lake	43	*	*	150	8.7%	4.0%	
Madison	43	*	*	150	8.7%	4.0%	
Lawrence	130	9.2%	4.4%	372	8.9%	2.5%	
Deadwood	36	*	*	100	11.0%	5.5%	
Spearfish	94	*	*	272	8.1%	2.8%	
Lincoln	42	*	*	99	*	*	
Canton	42	*	*	99	*	*	
Lyman	40	*	*	136	5.1%	3.2%	
Kennebec	3	*	*	17	*	*	
Lower Brule	37	*	*	119	4.2%	3.1%	
Marshall	19	*	*	43	*	*	
Britton	19	*	*	43	*	*	
McCook	27	*	*	88	*	*	
Salem	27	*	*	88	*	*	
McPherson	5	*	*	19	*	*	
Eureka	#	*	*	7	*	*	
Leola	#	*	*	12	*	*	
Meade	84	*	*	250	6.8%	2.7%	
Faith	8	*	*	26	*	*	
Sturgis	76	*	*	224	7.1%	2.9%	
Miner	3	*	*	21	*	*	
Howard	3	*	*	21	*	*	
Minnehaha	1,078	8.0%	1.4%	3,236	8.3%	0.8%	
Sioux Falls	1,078	8.0%	1.4%	3,236	8.3%	0.8%	
Moody	42	*	*	115	8.7%	4.5%	
Flandreau	42	*	*	115	8.7%	4.5%	
Pennington	1,008	7.5%	1.4%	2,998	7.3%	0.8%	
Ellsworth	101	11.9%	5.6%	376	7.2%	2.3%	
Hill City	15	*	*	53	*	*	
Rapid City	889	7.0%	1.5%	2,552	7.4%	0.9%	
Wall	3	*	*	17	*	*	
Perkins	13	*	*	45	*	*	
Bison	5	*	*	12	*	*	
Lemmon	8	*	*	33	*	*	

⁽¹⁾ Birth weights less than 2,500 grams; excludes birth weights less than 250 grams.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Table 3 (Continued)

Pediatric Nutrition Surveillance System Low Birth Weight Reporting Period 01/01/2005 to 12/31/2005

County	Low	2005 Data	at (1)		ear Data (20 v Birth Weig	
_		Bereaut	Confidence	Total		Confidence
Clinic	Total	Percent LBW			Percent LBW	
D 44	Records	LBW *	Interval (±)	Records	LBVV *	Interval (±)
Potter	8	*	*	30	*	*
Hoven	8			30		
Roberts	134	4.5%	3.0%	380	6.3%	2.1%
Sisseton	134	4.5%	3.0%	380	6.3%	2.1%
Sanborn	10	*	*	28	*	*
Woonsocket	10	*	*	28	*	*
Shannon	342	9.9%	2.8%	1,027	9.3%	1.6%
Kyle	86	*	*	256	10.2%	3.3%
Manderson	25	*	*	86	*	*
Pine Ridge	212	11.3%	3.8%	616	9.1%	2.0%
Porcupine	19	*	*	69	*	*
Spink	27	*	*	88	*	*
Redfield	27	*	*	88	*	*
Stanley	32	*	*	78	*	*
Ft. Pierre	32	*	*	78	*	*
Sully	6	*	*	12	*	*
Onida	6	*	*	12	*	*
Tripp	44	*	*	130	9.2%	4.4%
Winner	44	*	*	130	9.2%	4.4%
Turner	25	*	*	70	*	*
Parker	12	*	*	30	*	*
Viborg	13	*	*	40	*	*
Union	37	*	*	115	9.6%	4.8%
Elk Point	37	*	*	115	9.6%	4.8%
Walworth	28	*	*	101	1.0%	1.6%
Mobridge	#	*	*	94	*	*
Selby	#	*	*	7	*	*
Yankton	139	10.8%	4.6%	392	11.2%	2.8%
Yankton	139	10.8%	4.6%	392	11.2%	2.8%
Ziebach	8	*	*	20	*	*
Dupree	8	*	*	20	*	*
Healthy People 2010		5.0%			5.0%	
Statewide PedNSS	5,033	7.7%	0.6%	15,045	7.9%	0.4%
National 2004		9.3%		·		

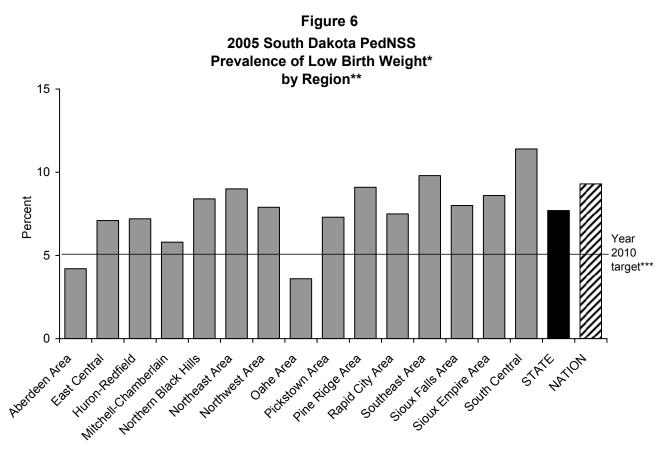
Shaded rows indicate the three-year data are significantly higher than the state three-year data at the 0.05 level. (1) Birth weights less than 2,500 grams; excludes birth weights less than 250 grams.

Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Regional Low Birth Weight Data

When the low birth weight data is examined regionally the statistics vary from 3.6 percent to 11.4 percent. The central part of the state "Oahe Area" reflects the lowest number and the South Central part of the state shows the highest rate of low birth weights among the PedNSS infants born during the reporting period. Appendix B shows the counties making up each of these Regions.



- * < 2500 grams, among infants born during the reporting period.</p>
- ** Data for some regions not presented if <100 records are available for analysis after exclusions.
- *** Reduce low birthweight to 5% of live births.

Table 4

Pediatric Nutrition Surveillance System
Low Birth Weight
Reporting Period 01/01/2005 to 12/31/2005

Region**	2005 Data Low Birth Weight (1)			Three Year Data (2003-2005) Low Birth Weight (1)		
	Total Records	Percent LBW	Confidence Interval (±)	Total Records	Percent LBW	Confidence Interval (±)
Aberdeen Area	240	4.2%	2.2%	717	6.8%	1.6%
East Central	212	7.1%	3.0%	610	7.5%	1.8%
Huron-Redfield	138	7.2%	3.8%	420	8.6%	2.4%
Mitchell-Chamberlain	226	5.8%	2.6%	632	7.6%	1.8%
Northern Black Hills	214	8.4%	3.3%	622	8.0%	1.9%
Northeast Area	387	9.0%	2.5%	1,124	8.9%	1.5%
North Central	48	*	*	173	4.0%	2.5%
Northwest Area	114	7.9%	4.3%	338	6.5%	2.3%
Oahe Area	165	3.6%	2.4%	496	5.0%	1.7%
Pickstown Area	192	7.3%	3.2%	598	7.4%	1.8%
Pine Ridge Area	430	9.1%	2.4%	1,281	9.0%	1.4%
Rapid City Area	1,008	7.5%	1.4%	2,998	7.3%	0.8%
Southeast Area	244	9.8%	3.3%	707	8.9%	1.8%
Sioux Falls Area	1,078	8.0%	1.4%	3,236	8.3%	0.8%
Sioux Empire Area	140	8.6%	4.1%	428	7.7%	2.2%
South Central	140	11.4%	4.7%	458	7.9%	2.2%
Southern Black Hills	57	*	*	207	9.7%	3.6%
Healthy People 2010		5.0%			5.0%	
Statewide PedNSS	5,033	7.7%	0.6%	15,045	7.9%	0.4%
National 2004		9.3%				

Shaded rows indicate the three-year data are significantly higher than the state three-year data at the 0.05 level.

(1) Birth weights less than 2,500 grams; excludes birth weights less than 250 grams.

* Data from regions with less than 100 records per year were not applying as the values do not most standards.

^{*} Data from regions with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

^{**} Counties by regions and regions by county conversion tables are in Appendix A and Appendix B.

Table 5

Pediatric Nutrition Surveillance System
High Birth Weight
Reporting Period 01/01/2005 to 12/31/2005

		2005 Data	1/2000 to 12	Three Year Data (2003-2005)			
County	Higl	n Birth Weig	ht (2)	High Birth Weight (2)			
Clinic	Total	Percent	Confidence	Total	Percent	Confidence	
	Records	HBW	Interval (±)	Records	HBW	Interval (±)	
Aurora	10	*	*	35	*	*	
Plankinton	10	*	*	35	*	*	
Beadle	111	9.9%	4.9%	332	9.3%	2.8%	
Huron	111	9.9%	4.9%	332	9.3%	2.8%	
Bennett	42	*	*	129	14.0%	5.4%	
Martin	42	*	*	129	14.0%	5.4%	
Bon Homme	40	*	*	96	*	*	
Tyndall	40	*	*	96	*	*	
Brookings	136	8.1%	4.0%	382	10.2%	2.7%	
Brookings	136	8.1%	4.0%	382	10.2%	2.7%	
Brown	184	8.2%	3.5%	584	9.2%	2.1%	
Aberdeen	184	8.2%	3.5%	584	9.2%	2.1%	
Brule	34	*	*	72	*	*	
Chamberlain	28	*	*	58	*	*	
Kimball	6	*	*	14	*	*	
Buffalo	45	*	*	152	15.1%	5.2%	
Ft. Thompson	45	*	*	152	15.1%	5.2%	
Butte	76	*	*	217	6.0%	2.7%	
Belle Fourche	67	*	*	194	5.2%	2.7%	
Newell	9	*	*	23			
Charles Mix	97	*	*	326	8.3%	2.6%	
Lake Andes Platte	25 18	*	*	89 36	*	*	
	54	*	*	201	6.5%	3.0%	
Wagner Clark	10	*	*	38	V.5 /6 *	3.0 /0	
Clark	10	*	*	36 38	*	*	
Clay	68	*	*	200	13.5%	4.3%	
Vermillion	68	*	*	200	13.5%	4.3%	
Codington	187	8.0%	3.4%	547	7.7%	2.0%	
Watertown	187	8.0%	3.4%	547	7.7%	2.0%	
Corson	3	*	*	6	*	*	
McLaughlin	3	*	*	6	*	*	
Custer	21	*	*	70	*	*	
Custer	21	*	*	70	*	*	
Davison	150	6.7%	3.5%	424	7.5%	2.2%	
Mitchell	150	6.7%	3.5%	424	7.5%	2.2%	
Day	37	*	*	90	*	*	
Webster	37	*	*	90	*	*	
Deuel	12	*	*	42	*	*	
Clear Lake	12	*	*	42	*	*	

⁽²⁾ Birth weights greater than 4,000 grams; excludes birth weights greater than 6,000 grams.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Table 5 (Continued)

Pediatric Nutrition Surveillance System High Birth Weight Reporting Period 01/01/2005 to 12/31/2005

County	Hial	2005 Data h Birth Weig	ht (2)	Three Year Data (2003-2005) High Birth Weight (2)			
Clinic	Total	Percent	Confidence	Total	Percent	Confidence	
	Records	HBW	Interval (±)	Records	HBW	Interval (±)	
Dewey	14	*	*	48	*	*	
Isabel	6	*	*	15	*	*	
Timber Lake	8	*	*	33	*	*	
Douglas	6	*	*	32	*	*	
Armour	6	*	*	32	*	*	
Edmunds	7	*	*	28	*	*	
Bowdle	4	*	*	17	*	*	
Ipswich	3	*	*	11	*	*	
Fall River	36	*	*	137	6.6%	3.6%	
Hot Springs	36	*	*	137	6.6%	3.6%	
Faulk	5	*	*	19	*	*	
Faulkton	5	*	*	19	*	*	
Grant	44	*	*	117	6.0%	3.7%	
Milbank	44	*	*	117	6.0%	3.7%	
Gregory	25	*	*	74	*	*	
Bonesteel	#	*	*	17	*	*	
Burke	#	*	*	57	*	*	
Haakon	4	*	*	17	*	*	
Philip	4	*	*	17	*	*	
Hamlin	27	*	*	95	*	*	
Hayti	27	*	*	95	*	*	
Hand	7	*	*	42	*	*	
Miller	7	*	*	42	*	*	
Hanson	13	*	*	45	*	*	
Alexandria	13	*	*	45	*	*	
Harding	3	*	*	8	*	*	
Buffalo	3	*	*	8	*	*	
Hughes	104	7.7%	4.5%	312	8.3%	2.7%	
Pierre	104	7.7%	4.5%	312	8.3%	2.7%	
Hutchinson	24	*	*	70	*	*	
Freeman	13	*	*	35	*	*	
Parkston	11	*	*	35	*	*	
Hyde	8	*	*	22	*	*	
Highmore	8	*	*	22	*	*	
Jackson	46	*	*	125	19.2%	6.4%	
Kadoka	7	*	*	27	*	*	
Wanblee	39	*	*	98	*	*	
Jerauld	9	*	*	28	*	*	
Wessington Springs	9	*	*	28	*	*	
Jones	7	*	*	23	*	*	
Murdo	7	*	*	23	*	*	

Shaded rows indicate the three-year data are significantly higher than the state three-year data at the 0.05 level.

(2) Birth weights greater than 4,000 grams; excludes birth weights greater than 6,000 grams.

* Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Table 5 (Continued)

Pediatric Nutrition Surveillance System High Birth Weight Reporting Period 01/01/2005 to 12/31/2005

County	Higl	2005 Data h Birth Weig	ht (2)		ear Data (20 h Birth Weig	
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
	Records	HBW	Interval (±)	Records	HBW	Interval (±)
Kingsbury	7	*	*	18	*	*
De Smet	7	*	*	18	*	*
Lake	43	*	*	150	4.0%	2.7%
Madison	43	*	*	150	4.0%	2.7%
Lawrence	130	7.7%	4.0%	372	5.4%	2.0%
Deadwood	36	*	*	100	4.0%	3.3%
Spearfish	94	*	*	272	5.9%	2.4%
Lincoln	42	*	*	99	*	*
Canton	42	*	*	99	*	*
Lyman	40	*	*	136	4.4%	3.0%
Kennebec	3	*	*	17	*	*
Lower Brule	37	*	*	119	4.2%	3.1%
Marshall	19	*	*	43	*	*
Britton	19	*	*	43	*	*
McCook	27	*	*	88	*	*
Salem	27	*	*	88	*	*
McPherson	5	*	*	19	*	*
Eureka	#	*	*	7	*	*
Leola	#	*	*	12	*	*
Meade	84	*	*	250	7.6%	2.9%
Faith	8	*	*	26	*	*
Sturgis	76	*	*	224	7.6%	3.0%
Miner	3	*	*	21	*	*
Howard	3	*	*	21	*	*
Minnehaha	1,078	7.2%	1.3%	3,236	7.9%	0.8%
Sioux Falls	1,078	7.2%	1.3%	3,236	7.9%	0.8%
Moody	42	*	*	115	13.0%	5.5%
Flandreau	42	*	*	115	13.0%	5.5%
Pennington	1,008	8.0%	1.5%	2,998	8.0%	0.8%
Ellsworth	101	11.9%	5.6%	376	5.9%	2.1%
Hill City	15	*	*	53	*	*
Rapid City	889	7.5%	1.5%	2,552	8.5%	0.9%
Wall	3	*	*	17	*	*
Perkins	13	*	*	45	*	*
Bison	5	*	*	12	*	*
Lemmon	8	*	*	33	*	*

Shaded rows indicate the three-year data are significantly higher than the state three-year data at the 0.05 level.

(2) Birth weights greater than 4,000 grams; excludes birth weights greater than 6,000 grams.

* Data from counties with less than 100 grams; and the part of the part

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Table 5 (Continued)

Pediatric Nutrition Surveillance System High Birth Weight Reporting Period 01/01/2005 to 12/31/2005

County	Hial	2005 Data h Birth Weig	ht (2)		ear Data (20 h Birth Weig	
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
	Records	HBW	Interval (±)	Records	HBW	Interval (±)
Potter	8	*	*	30	*	*
Hoven	8	*	*	30	*	*
Roberts	134	9.0%	4.3%	380	15.0%	3.3%
Sisseton	134	9.0%	4.3%	380	15.0%	3.3%
Sanborn	10	*	*	28	*	*
Woonsocket	10	*	*	28	*	*
Shannon	342	9.4%	2.7%	1,027	10.0%	1.6%
Kyle	86	*	*	256	12.9%	3.7%
Manderson	25	*	*	86	*	*
Pine Ridge	212	9.4%	3.5%	616	9.9%	2.1%
Porcupine	19	*	*	69	*	*
Spink	27	*	*	88	*	*
Redfield	27	*	*	88	*	*
Stanley	32	*	*	78	*	*
Ft. Pierre	32	*	*	78	*	*
Sully	6	*	*	12	*	*
Onida	6	*	*	12	*	*
Tripp	44	*	*	130	10.0%	4.6%
Winner	44	*	*	130	10.0%	4.6%
Turner	25	*	*	70	*	*
Parker	12	*	*	30	*	*
Viborg	13	*	*	40	*	*
Union	37	*	*	115	7.0%	4.1%
Elk Point	37	*	*	115	7.0%	4.1%
Walworth	28	*	*	101	8.9%	4.9%
Mobridge	#	*	*	94	*	*
Selby	#	*	*	7	*	*
Yankton	139	8.6%	4.1%	392	11.0%	2.8%
Yankton	139	8.6%	4.1%	392	11.0%	2.8%
Ziebach	8	*	*	20	*	*
Dupree	8	*	*	20	*	*
Statewide PedNSS	5,033	8.2%	0.7%	15,045	8.8%	0.4%
National 2004		6.8%		·		

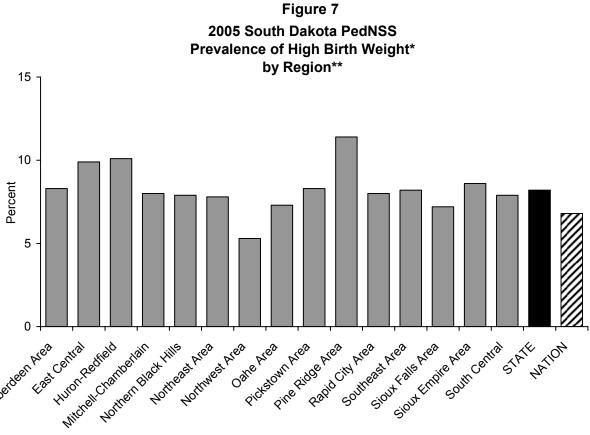
Shaded rows indicate the three-year data are significantly higher than the state three-year data at the 0.05 level. (2) Birth weights greater than 4,000 grams; excludes birth weights greater than 6,000 grams.

Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Regional High Birth Weight Data

When the high birth weight data is examined regionally the statistics vary from 5.3 percent to 11.4 percent. The Northwest Area had the lowest number and the Pine Ridge Area of the state shows the highest rate of high birth weights among the PedNSS infants born during the reporting period. Appendix B shows the counties making up each of these Regions.



- * >4000 grams, among infants born during the reporting period.
- ** Data for some regions not presented if <100 records are available for analysis after exclusions.

Table 6 **Pediatric Nutrition Surveillance System High Birth Weight** Reporting Period 01/01/2005 to 12/31/2005

Region**	Higl	2005 Data h Birth Weig	ht (2)	Three Year Data (2003-2005) High Birth Weight (2)			
	Total Records	Percent HBW	Confidence Interval (±)	Total Records	Percent HBW	Confidence Interval (±)	
Aberdeen Area	240	8.3%	3.1%	717	9.5%	1.9%	
East Central	212	9.9%	3.6%	610	11.3%	2.2%	
Huron-Redfield	138	10.1%	4.5%	420	9.3%	2.4%	
Mitchell-Chamberlain	226	8.0%	3.1%	632	7.9%	1.8%	
Northern Black Hills	214	7.9%	3.2%	622	6.3%	1.7%	
Northeast Area	387	7.8%	2.3%	1,124	9.8%	1.5%	
North Central	48	*	*	173	9.8%	3.9%	
Northwest Area	114	5.3%	3.5%	338	6.5%	2.3%	
Oahe Area	165	7.3%	3.5%	496	7.9%	2.1%	
Pickstown Area	192	8.3%	3.4%	598	8.9%	2.0%	
Pine Ridge Area	430	11.4%	2.7%	1,281	11.3%	1.5%	
Rapid City Area	1,008	8.0%	1.5%	2,998	8.0%	0.8%	
Southeast Area	244	8.2%	3.0%	707	11.0%	2.1%	
Sioux Falls Area	1,078	7.2%	1.3%	3,236	7.9%	0.8%	
Sioux Empire Area	140	8.6%	4.1%	428	10.5%	2.6%	
South Central	140	7.9%	3.9%	458	9.6%	2.4%	
Southern Black Hills	57	*	*	207	5.8%	2.8%	
Statewide PedNSS	5,033	8.2%	0.7%	15,045	8.8%	0.4%	
National 2004		6.8%					

Shaded rows indicate the three-year data are significantly higher than the state three-year data at the 0.05 level.

(2) Birth weights greater than 4,000 grams; excludes birth weights greater than 6,000 grams.

* Data from regions with less than 100 records per year were not analyzed as the values do not most standards.

Data from regions with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

^{**} Counties by regions and regions by county conversion tables are in Appendix A and Appendix B.

Short Stature (Low Height-for-Age)

Short stature is defined as a height-for-age below the 5th percentile for children of the same height and age in the reference populations used by the National Center for Health Statistics, Centers for Disease Control (NCHS) / CDC. Measurements of height are obtained by recumbent (lying down) measurement in children through 24 months and by upright measurement in children over 24 months.

Short stature may be evidence of compromised health, delayed development, and poor diet. Compromised nutrition, and/or infectious and chronic disease may impair full growth potential.

The Healthy People 2010 Goal: Reduce growth retardation (short stature) among low-income children under age 5 years to 5 percent.

The South Dakota rate of short stature among PedNSS records in 2005 was 6.0 percent, down from 6.4 percent in 2004. The South Dakota PedNSS population had a short stature rate of 6.2 percent over the three-year period 2003-2005. The United States PedNSS population had a short stature rate of 6.4 percent in calendar year 2004.

Figure 8 **South Dakota PedNSS** Prevalence of Short Stature* Among Children Aged <5 Years, by Race 15 ■ South Dakota (2005) 10 ■ Nation (2004) Percent Year 2010 5 target** 0 White Black American Asian Total Indian

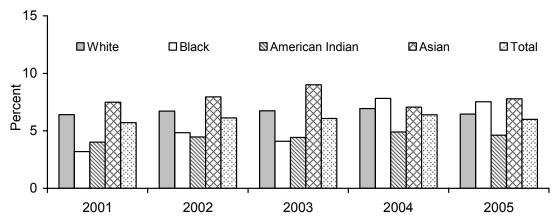
* < 5th percentile length or height-for-age, CDC Growth Charts, 2000.

^{**} Reduce growth retardation (short stature) among low-income children under age 5 years to 5%.

Figure 9

South Dakota PedNSS

Trends in Prevalence of Short Stature*
by Race



^{* &}lt; 5th percentile length or height-for-age, CDC Growth Charts, 2000. Year 2010 target: Reduce growth retardation (short stature) among low-income children under age 5 years to 5%.

The percentage of short stature varied by race in South Dakota's 2005 PedNSS population. The rates were:

- 6.5 percent for whites
- 7.5 percent for blacks
- 4.6 percent for American Indians or Alaskan Natives
- 7.8 percent for Asian or Pacific Islander.

The age breakdown for this population was:

- less than one year, 9.4 percent
- one year, 4.4 percent
- 2-4 years, 3.6 percent.

Table 7

Pediatric Nutrition Surveillance System
Low Height-for-Age
Reporting Period 01/01/2005 to 12/31/2005

		2005 Data	(0)		ear Data (20	
County		Low Height-for-Age (3)			Height-for-A	
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
_	Records	*	Interval (±)	Records	2 -2/	Interval (±)
Aurora	60	*	*	201	3.5%	2.2%
Plankinton	60			201	3.5%	2.2%
Beadle	497	5.8%	1.8%	1,417	7.1%	1.2%
Huron	497	5.8%	1.8%	1,417	7.1%	1.2%
Bennett	216	4.2%	2.3%	627	5.6%	1.6%
Martin	216	4.2%	2.3%	627	5.6%	1.6%
Bon Homme	156	3.8%	2.6%	472	6.8%	2.0%
Tyndall	156	3.8%	2.6%	472	6.8%	2.0%
Brookings	512	6.1%	1.8%	1,480	5.7%	1.0%
Brookings	512	6.1%	1.8%	1,480	5.7%	1.0%
Brown	740	4.6%	1.3%	2,305	5.6%	0.8%
Aberdeen	740	4.6%	1.3%	2,305	5.6%	0.8%
Brule	128	5.5%	3.4%	358	4.2%	1.8%
Chamberlain	106	6.6%	4.1%	296	3.7%	1.8%
Kimball	22	*	*	62	*	*
Buffalo	235	4.3%	2.2%	702	3.6%	1.2%
Ft. Thompson	235	4.3%	2.2%	702	3.6%	1.2%
Butte	330	4.2%	1.9%	960	5.0%	1.2%
Belle Fourche	287	4.2%	2.0%	821	5.1%	1.3%
Newell	43	*	*	139	4.3%	2.9%
Charles Mix	511	4.1%	1.5%	1,495	3.9%	0.8%
Lake Andes	145	4.8%	3.0%	429	3.7%	1.5%
Platte	61	*	*	164	6.7%	3.3%
Wagner	305	3.0%	1.6%	902	3.4%	1.0%
Clark	77	*	*	228	6.1%	2.7%
Clark	77	*	*	228	6.1%	2.7%
Clay	278	7.9%	2.8%	854	7.4%	1.5%
Vermillion	278	7.9%	2.8%	854	7.4%	1.5%
Codington	664	6.6%	1.6%	2,017	6.4%	0.9%
Watertown	664	6.6%	1.6%	2,017	6.4%	0.9%
Corson	13	*	*	37	*	*
McLaughlin	13	*	*	37	*	*
Custer	109	4.6%	3.4%	330	6.1%	2.2%
Custer	109	4.6%	3.4%	330	6.1%	2.2%
Davison	524	7.3%	1.9%	1,509	7.0%	1.1%
Mitchell	524	7.3%	1.9%	1,509	7.0%	1.1%
Day	160	3.1%	2.3%	486	2.9%	1.3%
Webster	160	3.1%	2.3%	486	2.9%	1.3%
Deuel	57	*	*	173	6.4%	3.2%
Clear Lake	57	*	*	173	6.4%	3.2%

⁽³⁾ Low Height-For-Age: less than 5th percentile based on 2000 CDC growth chart percentiles for length-for-age for children under 2 years of age and height-for-age for children 2 years of age and older; excludes biologically implausible values for height, weight, and age.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Table 7 (Continued)

Pediatric Nutrition Surveillance System Low Height-for-Age Reporting Period 01/01/2005 to 12/31/2005

		2005 Data			ear Data (20	
County		Height-for-A			Height-for-A	
Clinic	Total Records	Percent	Confidence Interval (±)	Total Records	Percent	Confidence Interval (±)
Dewey	60	*	*	181	9.9%	3.8%
Isabel	21	*	*	53	*	*
Timber Lake	39	*	*	128	9.4%	4.5%
Douglas	47	*	*	166	3.0%	2.2%
Armour	47	*	*	166	3.0%	2.2%
Edmunds	52	*	*	161	2.5%	2.0%
Bowdle	34	*	*	112	2.7%	2.6%
lpswich	18	*	*	49	*	*
Fall River	180	5.6%	2.9%	572	5.9%	1.7%
Hot Springs	180	5.6%	2.9%	572	5.9%	1.7%
Faulk	33	*	*	112	1.8%	2.1%
Faulkton	33	*	*	112	1.8%	2.1%
Grant	164	3.0%	2.2%	501	3.4%	1.4%
Milbank	164	3.0%	2.2%	501	3.4%	1.4%
Gregory	104	3.8%	3.1%	319	6.3%	2.3%
Bonesteel	32	*	*	82	*	*
Burke	72	*	*	237	5.5%	2.5%
Haakon	36	*	*	119	3.4%	2.8%
Philip	36	*	*	119	3.4%	2.8%
Hamlin	160	9.4%	4.0%	477	11.1%	2.5%
Hayti	160	9.4%	4.0%	477	11.1%	2.5%
Hand	53	*	*	195	3.1%	2.1%
Miller	53	*	*	195	3.1%	2.1%
Hanson	76	*	*	247	6.1%	2.6%
Alexandria	76	*	*	247	6.1%	2.6%
Harding	14	*	*	41	*	*
Buffalo	14	*	*	41	*	*
Hughes	395	6.6%	2.1%	1,229	6.9%	1.2%
Pierre	395	6.6%	2.1%	1,229	6.9%	1.2%
Hutchinson	115	3.5%	2.9%	339	7.1%	2.4%
Freeman	68	*	*	186	4.8%	2.6%
Parkston	47	*	*	153	9.8%	4.2%
Hyde	44	*	*	137	4.4%	2.9%
Highmore	44	*	*	137	4.4%	2.9%
Jackson	212	3.8%	2.2%	663	3.5%	1.2%
Kadoka	42	*	*	144	4.2%	2.8%
Wanblee	170	3.5%	2.4%	519	3.3%	1.3%
Jerauld	46	*	*	126	11.9%	5.1%
Wessington Springs	46	*	*	126	11.9%	5.1%
Jones	35	*	*	124	5.6%	3.5%
Murdo	35	*	*	124	5.6%	3.5%

⁽³⁾ Low Height-For-Age: less than 5th percentile based on 2000 CDC growth chart percentiles for length-for-age for children under 2 years of age and height-for-age for children 2 years of age and older; excludes biologically implausible values for height, weight, and age.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Table 7 (Continued)

Pediatric Nutrition Surveillance System Low Height-for-Age Reporting Period 01/01/2005 to 12/31/2005

		2005 Data	40)	Three Year Data (2003-2005)				
County		Low Height-for-Age (3)			Low Height-for-Age (3)			
Clinic	Total	Percent	Confidence	Total	Percent	Confidence		
	Records		Interval (±)	Records		Interval (±)		
Kingsbury	47	*	*	139	3.6%	2.6%		
De Smet	47	*	*	139	3.6%	2.6%		
Lake	188	8.5%	3.5%	588	7.8%	1.9%		
Madison	188	8.5%	3.5%	588	7.8%	1.9%		
Lawrence	460	7.6%	2.1%	1,344	8.6%	1.3%		
Deadwood	124	10.5%	4.8%	399	8.8%	2.4%		
Spearfish	336	6.5%	2.3%	945	8.6%	1.6%		
Lincoln	153	8.5%	3.9%	397	6.5%	2.1%		
Canton	153	8.5%	3.9%	397	6.5%	2.1%		
Lyman	240	3.8%	2.1%	737	4.3%	1.3%		
Kennebec	38	*	*	122	5.7%	3.6%		
Lower Brule	202	3.5%	2.2%	615	4.1%	1.3%		
Marshall	72	*	*	186	4.3%	2.5%		
Britton	72	*	*	186	4.3%	2.5%		
McCook	124	8.1%	4.2%	356	7.9%	2.5%		
Salem	124	8.1%	4.2%	356	7.9%	2.5%		
McPherson	37	*	*	120	4.2%	3.1%		
Eureka	18	*	*	61	*	*		
Leola	19	*	*	59	*	*		
Meade	384	4.4%	1.8%	1,190	5.0%	1.1%		
Faith	43	*	*	144	2.8%	2.3%		
Sturgis	341	4.7%	1.9%	1,046	5.3%	1.2%		
Miner	28	*	*	119	5.0%	3.4%		
Howard	28	*	*	119	5.0%	3.4%		
Minnehaha	3,564	6.4%	0.7%	10,766	6.7%	0.4%		
Sioux Falls	3,564	6.4%	0.7%	10,766	6.7%	0.4%		
Moody	166	9.0%	3.8%	461	6.5%	2.0%		
Flandreau	166	9.0%	3.8%	461	6.5%	2.0%		
Pennington	3,935	7.0%	0.7%	11,661	7.1%	0.4%		
Ellsworth	420	5.7%	1.9%	1,426	5.2%	1.0%		
Hill City	91	*	*	238	5.5%	2.5%		
Rapid City	3,397	7.3%	0.8%	9,901	7.4%	0.4%		
Wall	27	*	*	96	*	*		
Perkins	90	*	*	289	4.2%	2.0%		
Bison	35	*	*	95	*	*		
Lemmon	55	*	*	194	4.1%	2.4%		

⁽³⁾ Low Height-For-Age: less than 5th percentile based on 2000 CDC growth chart percentiles for length-for-age for children under 2 years of age and height-for-age for children 2 years of age and older; excludes biologically implausible values for height, weight, and age.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Table 7 (Continued)

Pediatric Nutrition Surveillance System Low Height-for-Age Reporting Period 01/01/2005 to 12/31/2005

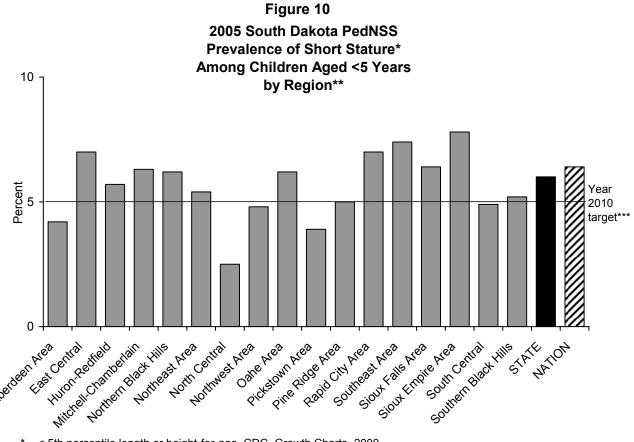
		2005 Data		Three Year Data (2003-2005)			
County	Low	Height-for-A	ae (3)		Height-for-A		
Clinic	Total	Percent	Confidence	Total	Percent	Confidence	
	Records		Interval (±)	Records		Interval (±)	
Potter	49	*	*	157	5.1%	3.0%	
Hoven	49	*	*	157	5.1%	3.0%	
Roberts	533	4.1%	1.4%	1,459	4.1%	0.9%	
Sisseton	533	4.1%	1.4%	1,459	4.1%	0.9%	
Sanborn	53	*	*	136	9.6%	4.4%	
Woonsocket	53	*	*	136	9.6%	4.4%	
Shannon	1,341	5.3%	1.0%	3,973	4.9%	0.6%	
Kyle	361	4.7%	1.9%	1,054	4.2%	1.0%	
Manderson	85	*	*	282	6.0%	2.4%	
Pine Ridge	771	6.2%	1.5%	2,269	5.3%	0.8%	
Porcupine	124	3.2%	2.6%	368	3.5%	1.6%	
Spink	147	5.4%	3.2%	407	3.2%	1.5%	
Redfield	147	5.4%	3.2%	407	3.2%	1.5%	
Stanley	139	7.9%	3.9%	373	7.5%	2.3%	
Ft. Pierre	139	7.9%	3.9%	373	7.5%	2.3%	
Sully	18	*	*	48	*	*	
Onida	18	*	*	48	*	*	
Tripp	174	8.0%	3.5%	530	5.8%	1.7%	
Winner	174	8.0%	3.5%	530	5.8%	1.7%	
Turner	119	5.0%	3.4%	329	6.1%	2.2%	
Parker	55	*	*	139	5.8%	3.4%	
Viborg	64	*	*	190	6.3%	3.0%	
Union	115	7.0%	4.1%	410	6.3%	2.0%	
Elk Point	115	7.0%	4.1%	410	6.3%	2.0%	
Walworth	148	1.4%	1.6%	486	2.9%	1.3%	
Mobridge	136	1.5%	1.7%	437	2.7%	1.3%	
Selby	12	*	*	49	*	*	
Yankton	549	7.3%	1.9%	1,576	7.1%	1.1%	
Yankton	549	7.3%	1.9%	1,576	7.1%	1.1%	
Ziebach	30	*	*	110	3.6%	3.0%	
Dupree	30	*	*	110	3.6%	3.0%	
Healthy People 2010		5.0%			5.0%		
Statewide PedNSS	19,996	6.0%	0.3%	59,707	6.2%	0.2%	
National 2004		6.4%		·			

⁽³⁾ Low Height-For-Age: less than 5th percentile based on 2000 CDC growth chart percentiles for length-for-age for children under 2 years of age and height-for-age for children 2 years of age and older; excludes biologically implausible values for height, weight, and age

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Regional Short Stature Data

When the Short Stature data is examined regionally the statistics vary from 2.5 percent to 7.8 percent. The North Central region of the state reflects the lowest number and the Sioux Empire Area region of the state shows the highest rate of Short Stature among the PedNSS population less than 5 years of age. Appendix B shows the counties making up each of these Regions.



- * < 5th percentile length or height-for-age, CDC Growth Charts, 2000.
- ** Data for some regions not presented if <100 records are available for analysis after exclusions.
- *** Reduce growth retardation (short stature) among low-income children under age 5 years to 5%.

Table 8

Pediatric Nutrition Surveillance System
Low Height-for-Age
Reporting Period 01/01/2005 to 12/31/2005

Posion**	Low	2005 Data	mo (2)	Three Year Data (2003-2005)		
Region**		Height-for-A		Low Height-for-Age (3)		
	Total	Percent	Confidence	Total	Percent	Confidence
	Records		Interval (±)	Records		Interval (±)
Aberdeen Area	972	4.2%	1.1%	2,977	5.0%	0.7%
East Central	885	7.0%	1.5%	2,557	6.7%	0.8%
Huron-Redfield	644	5.7%	1.5%	1,824	6.2%	1.0%
Mitchell-Chamberlain	887	6.3%	1.4%	2,577	6.6%	0.8%
Northern Black Hills	844	6.2%	1.4%	2,534	6.9%	0.9%
Northeast Area	1,495	5.4%	1.0%	4,378	5.3%	0.6%
North Central	283	2.5%	1.5%	916	2.8%	0.9%
Northwest Area	524	4.8%	1.6%	1,581	5.2%	0.9%
Oahe Area	698	6.2%	1.6%	2,139	6.3%	0.9%
Pickstown Area	933	3.9%	1.1%	2,791	5.0%	0.7%
Pine Ridge Area	1,769	5.0%	0.9%	5,263	4.8%	0.5%
Rapid City Area	3,935	7.0%	0.7%	11,661	7.1%	0.4%
Southeast Area	942	7.4%	1.5%	2,840	7.1%	0.8%
Sioux Falls Area	3,564	6.4%	0.7%	10,766	6.7%	0.4%
Sioux Empire Area	612	7.8%	1.9%	1,789	7.0%	1.0%
South Central	720	4.9%	1.4%	2,212	4.5%	0.7%
Southern Black Hills	289	5.2%	2.2%	902	6.0%	1.3%
Healthy People 2010		5.0%			5.0%	
Statewide PedNSS	19,996	6.0%	0.3%	59,707	6.2%	0.2%
National 2004		6.4%				

⁽³⁾ Low Height-For-Age: less than 5th percentile based on 2000 CDC growth chart percentiles for length-for-age for children under 2 years of age and height-for-age for children 2 years of age and older; excludes biologically implausible values for height, weight, and age

^{**} Counties by regions and regions by county conversion tables are in Appendix A and Appendix B.

<u>Underweight/Overweight (Children less than 5 years of age)</u> (Low Weight-for-Height or High Weight-for-Height)

Infants and children up to age 2 years, falling below the 5th percentile in weight for height, compared to children of the same sex and age in the CDC reference are considered to be underweight. Children 2 years and older whose BMI-for-age falls below the 5th percentile are considered to be underweight. The conditions contributing to the higher percentage of low weight-for-height are inadequate dietary intake, failure to thrive, chronic and infectious diseases, and other normal variations within a population.

The percent prevalence of underweight infants and children was 3.2 percent in the South Dakota PedNSS data for 2005, up from 3.1 percent in 2004. The South Dakota PedNSS population had a low weight-for-height rate of 3.3 percent over the three-year period 2003-2005. The United States PedNSS population had a low weight-for-height rate of 4.7 percent in calendar year 2004.

Figure 11 **South Dakota PedNSS** Prevalence of Underweight* Among Children Aged <5 Years, by Race 15 ■ South Dakota (2005) ■ Nation (2004) 10 Percent 5 0 White Black American Asian Total Indian

* < 5th percentile weight-for-length or BMI-for-age, CDC Growth Charts, 2000. 5% of children are expected to fall below the 5th percentile.

The percent prevalence of underweight children by race in South Dakota's 2005 PedNSS population was:

- 3.4 percent for whites
- 4.8 percent for blacks
- 2.6 for American Indians and Alaskan Natives
- 4.1 percent for Asian or Pacific Islanders.

The age breakdown for this population was:

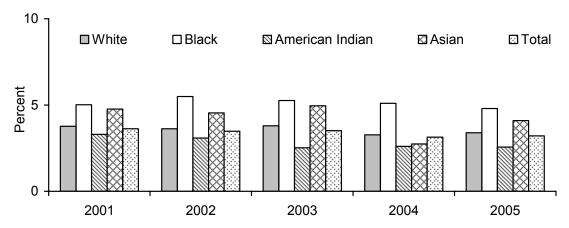
- less than one year, 4.3 percent
- one year, 2.4 percent
- 2-4 years of age, 2.5 percent.

Figure 12

South Dakota PedNSS

Trends in Prevalence of Underweight*

by Race



 ^{* &}lt; 5th percentile weight-for-length or BMI-for-age, CDC Growth Charts, 2000.
 5% of children are expected to fall below the 5th percentile.

Children 2 years and older that have a BMI-for-age at or above the 95th percentile are considered to be overweight.

The percent prevalence of overweight children by race in South Dakota's 2005 PedNSS population was:

- 11.6 percent for whites
- 12.5 percent for blacks
- 18.8 for American Indians and Alaskan Natives
- 10.7 percent for Asian or Pacific Islanders.

The age breakdown for this population was:

- less than one year, 11.8 percent
- one year, 17.0 percent
- 2-4 years of age, 13.9 percent.

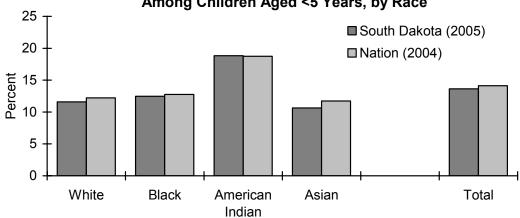
Figure 13

South Dakota PedNSS

Prevalence of Overweight*

Among Children Aged <5 Years, by Race

25 T



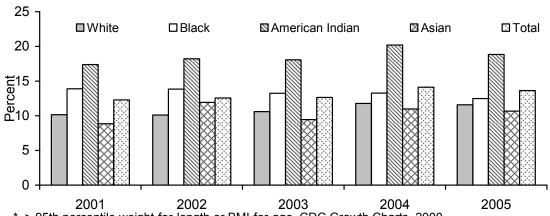
* > 95th percentile weight-for-length or BMI-for-age, CDC Growth Charts, 2000. 5% of children are expected to fall above the 95th percentile.

Figure 14

South Dakota PedNSS

Trends in Prevalence of Overweight*

Among Children Aged <5 Years, by Race



* > 95th percentile weight-for-length or BMI-for-age, CDC Growth Charts, 2000.
 5% of children are expected to fall above the 95th percentile.

Pediatric Nutrition Surveillance System
Low Weight-for-Height
Reporting Period 01/01/2005 to 12/31/2005

Table 9

_		2005 Data			ear Data (20	
County		eight-for-He			eight-for-He	
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
	Records	*	Interval (±)	Records	4.00/	Interval (±)
Aurora	60	*	*	201	1.0%	1.2%
Plankinton	60			201	1.0%	1.2%
Beadle	497	4.4%	1.5%	1,417	4.5%	0.9%
Huron	497	4.4%	1.5%	1,417	4.5%	0.9%
Bennett	216	2.3%	1.7%	627	2.4%	1.0%
Martin	216	2.3%	1.7%	627	2.4%	1.0%
Bon Homme	156	6.4%	3.3%	472	5.3%	1.7%
Tyndall	156	6.4%	3.3%	472	5.3%	1.7%
Brookings	512	2.9%	1.2%	1,480	2.5%	0.7%
Brookings	512	2.9%	1.2%	1,480	2.5%	0.7%
Brown	740	4.9%	1.3%	2,305	4.0%	0.7%
Aberdeen	740	4.9%	1.3%	2,305	4.0%	0.7%
Brule	128	3.1%	2.6%	358	3.4%	1.6%
Chamberlain	106	2.8%	2.7%	296	3.4%	1.8%
Kimball	22	*	*	62	*	
Buffalo	235	2.1%	1.6%	702	1.7%	0.8%
Ft. Thompson	235	2.1%	1.6%	702	1.7%	0.8%
Butte	330	3.3%	1.6%	960	4.9%	1.2%
Belle Fourche	287	3.1%	1.7%	821	3.8%	1.1%
Newell	43			139	11.5%	4.7%
Charles Mix	511	2.7%	1.2%	1,495	2.3%	0.6%
Lake Andes	145	2.1%	2.0%	429	2.8%	1.3%
Platte	61			164	2.4%	2.0%
Wagner	305	3.0%	1.6%	902	2.1%	0.8%
Clark	77	*	*	228	4.4%	2.3%
Clark	77			228	4.4%	2.3%
Clay	278	4.0%	2.0%	854	4.8%	1.2%
Vermillion	278	4.0%	2.0%	854	4.8%	1.2%
Codington	664	1.4%	0.8%	2,017	2.4%	0.6%
Watertown	664	1.4%	0.8%	2,017	2.4%	0.6%
Corson	13	*	*	37	*	*
McLaughlin	13			37		
Custer	109	2.8%	2.6%	330	1.8%	1.2%
Custer	109	2.8%	2.6%	330	1.8%	1.2%
Davison	524	2.9%	1.2%	1,509	2.6%	0.7%
Mitchell	524	2.9%	1.2%	1,509	2.6%	0.7%
Day	160	4.4%	2.7%	486	2.5%	1.2%
Webster	160	4.4%	2.7%	486	2.5%	1.2%
Deuel	57	*	*	173	1.7%	1.6%
Clear Lake	57	*	*	173	1.7%	1.6%

⁽⁴⁾ Low Weight-For-Height: less than 5th percentile based on 2000 CDC growth chart percentiles for weight-for-length for children under 2 years of age and height-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Table 9 (Continued)

Pediatric Nutrition Surveillance System Low Weight-for-Height Reporting Period 01/01/2005 to 12/31/2005

		2005 Data			ear Data (20	
County		eight-for-He			eight-for-He	
Clinic	Total Records	Percent	Confidence Interval (±)	Total Records	Percent	Confidence Interval (±)
Dewey	60	*	*	181	3.9%	2.4%
Isabel	21	*	*	53	*	*
Timber Lake	39	*	*	128	3.9%	2.9%
Douglas	47	*	*	166	4.8%	2.8%
Armour	47	*	*	166	4.8%	2.8%
Edmunds	52	*	*	161	1.9%	1.8%
Bowdle	34	*	*	112	2.7%	2.6%
Ipswich	18	*	*	49	*	*
Fall River	180	3.9%	2.4%	572	4.4%	1.4%
Hot Springs	180	3.9%	2.4%	572	4.4%	1.4%
Faulk	33	*	*	112	5.4%	3.6%
Faulkton	33	*	*	112	5.4%	3.6%
Grant	164	4.3%	2.7%	501	6.0%	1.8%
Milbank	164	4.3%	2.7%	501	6.0%	1.8%
Gregory	104	2.9%	2.7%	319	1.9%	1.3%
Bonesteel	32	*	*	82	*	*
Burke	72	*	*	237	2.1%	1.5%
Haakon	36	*	*	119	2.5%	2.4%
Philip	36	*	*	119	2.5%	2.4%
Hamlin	160	1.3%	1.5%	477	1.0%	0.8%
Hayti	160	1.3%	1.5%	477	1.0%	0.8%
Hand	53	*	*	195	5.1%	2.7%
Miller	53	*	*	195	5.1%	2.7%
Hanson	76	*	*	247	5.3%	2.4%
Alexandria	76	*	*	247	5.3%	2.4%
Harding	14	*	*	41	*	*
Buffalo	14	*	*	41	*	*
Hughes	395	1.8%	1.1%	1,229	2.1%	0.7%
Pierre	395	1.8%	1.1%	1,229	2.1%	0.7%
Hutchinson	115	3.5%	2.9%	339	3.2%	1.6%
Freeman	68	*	*	186	2.7%	2.0%
Parkston	47	*	*	153	3.9%	2.6%
Hyde	44	*	*	137	2.9%	2.4%
Highmore	44	*	*	137	2.9%	2.4%
Jackson	212	1.9%	1.6%	663	1.5%	0.8%
Kadoka	42	*	*	144	2.1%	2.0%
Wanblee	170	1.8%	1.7%	519	1.3%	0.8%
Jerauld	46	*	*	126	0.8%	1.3%
Wessington Springs	46	*	*	126	0.8%	1.3%
Jones	35	*	*	124	5.6%	3.5%
Murdo	35	*	*	124	5.6%	3.5%

⁽⁴⁾ Low Weight-For-Height: less than 5th percentile based on 2000 CDC growth chart percentiles for weight-for-length for children under 2 years of age and height-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Table 9 (Continued)

Pediatric Nutrition Surveillance System Low Weight-for-Height Reporting Period 01/01/2005 to 12/31/2005

County	Low W	2005 Data /eight-for-He	eight (4)		ear Data (20 eight-for-He	
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
	Records		Interval (±)	Records		Interval (±)
Kingsbury	47	*	*	139	2.9%	2.4%
De Smet	47	*	*	139	2.9%	2.4%
Lake	188	2.7%	2.0%	588	2.0%	1.0%
Madison	188	2.7%	2.0%	588	2.0%	1.0%
Lawrence	460	6.1%	1.9%	1,344	5.7%	1.1%
Deadwood	124	8.1%	4.2%	399	6.5%	2.1%
Spearfish	336	5.4%	2.1%	945	5.3%	1.2%
Lincoln	153	2.0%	1.9%	397	2.5%	1.3%
Canton	153	2.0%	1.9%	397	2.5%	1.3%
Lyman	240	0.4%	0.7%	737	1.9%	0.8%
Kennebec	38	*	*	122	3.3%	2.7%
Lower Brule	202	0.5%	0.8%	615	1.6%	0.8%
Marshall	72	*	*	186	2.7%	2.0%
Britton	72	*	*	186	2.7%	2.0%
McCook	124	0.0%	*	356	0.8%	0.8%
Salem	124	0.0%	*	356	0.8%	0.8%
McPherson	37	*	*	120	5.8%	3.6%
Eureka	18	*	*	61	*	*
Leola	19	*	*	59	*	*
Meade	384	3.6%	1.6%	1,190	3.2%	0.9%
Faith	43	*	*	144	1.4%	1.6%
Sturgis	341	3.8%	1.7%	1,046	3.4%	0.9%
Miner	28	*	*	119	5.9%	3.7%
Howard	28	*	*	119	5.9%	3.7%
Minnehaha	3,564	3.5%	0.5%	10,766	3.4%	0.3%
Sioux Falls	3,564	3.5%	0.5%	10,766	3.4%	0.3%
Moody	166	2.4%	2.0%	461	2.8%	1.3%
Flandreau	166	2.4%	2.0%	461	2.8%	1.3%
Pennington	3,935	3.1%	0.5%	11,661	3.3%	0.3%
Ellsworth	420	4.0%	1.6%	1,426	4.3%	0.9%
Hill City	91	*	*	238	4.2%	2.2%
Rapid City	3,397	3.0%	0.5%	9,901	3.1%	0.3%
Wall	27	*	*	96	*	*
Perkins	90	*	*	289	2.1%	1.4%
Bison	35	*	*	95	*	*
Lemmon	55	*	*	194	1.0%	1.2%

⁽⁴⁾ Low Weight-For-Height: less than 5th percentile based on 2000 CDC growth chart percentiles for weight-for-length for children under 2 years of age and height-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Table 9 (Continued)

Pediatric Nutrition Surveillance System Low Weight-for-Height Reporting Period 01/01/2005 to 12/31/2005

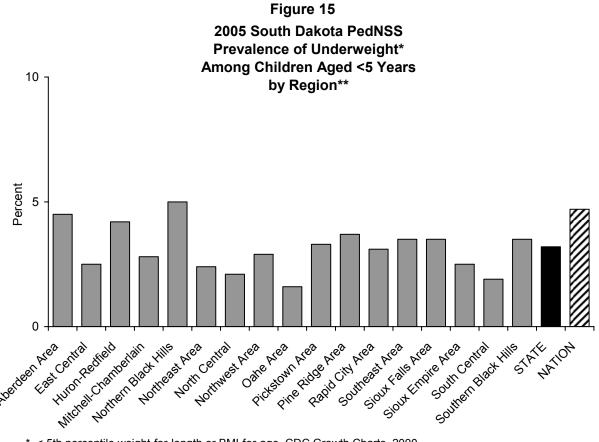
i		2005 Data		Three Year Data (2003-2005)			
County		/eight-for-He			eight-for-He		
Clinic	Total	Percent	Confidence	Total	Percent	Confidence	
<u> </u>	Records		Interval (±)	Records		Interval (±)	
Potter	49	*	*	157	0.0%	*	
Hoven	49	*	*	157	0.0%	*	
Roberts	533	2.6%	1.1%	1,459	2.7%	0.7%	
Sisseton	533	2.6%	1.1%	1,459	2.7%	0.7%	
Sanborn	53	*	*	136	3.7%	2.7%	
Woonsocket	53	*	*	136	3.7%	2.7%	
Shannon	1,341	4.3%	0.9%	3,973	4.1%	0.5%	
Kyle	361	2.5%	1.4%	1,054	2.0%	0.7%	
Manderson	85	*	*	282	5.0%	2.2%	
Pine Ridge	771	4.9%	1.3%	2,269	4.6%	0.7%	
Porcupine	124	4.8%	3.2%	368	6.3%	2.2%	
Spink	147	3.4%	2.5%	407	3.7%	1.6%	
Redfield	147	3.4%	2.5%	407	3.7%	1.6%	
Stanley	139	0.7%	1.2%	373	2.4%	1.3%	
Ft. Pierre	139	0.7%	1.2%	373	2.4%	1.3%	
Sully	18	*	*	48	*	*	
Onida	18	*	*	48	*	*	
Tripp	174	2.9%	2.1%	530	4.7%	1.5%	
Winner	174	2.9%	2.1%	530	4.7%	1.5%	
Turner	119	5.0%	3.4%	329	3.3%	1.6%	
Parker	55	*	*	139	1.4%	1.7%	
Viborg	64	*	*	190	4.7%	2.6%	
Union	115	5.2%	3.5%	410	4.4%	1.7%	
Elk Point	115	5.2%	3.5%	410	4.4%	1.7%	
Walworth	148	2.0%	1.9%	486	3.1%	1.3%	
Mobridge	136	2.2%	2.1%	437	3.4%	1.5%	
Selby	12	*	*	49	*	*	
Yankton	549	2.9%	1.2%	1,576	2.7%	0.7%	
Yankton	549	2.9%	1.2%	1,576	2.7%	0.7%	
Ziebach	30	*	*	110	1.8%	2.1%	
Dupree	30	*	*	110	1.8%	2.1%	
Statewide PedNSS	19,996	3.2%	0.2%	59,707	3.3%	0.1%	
National 2004	,	4.7%		,			

⁽⁴⁾ Low Weight-For-Height: less than 5th percentile based on 2000 CDC growth chart percentiles for weight-for-length for children under 2 years of age and height-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Regional Underweight Data

When the underweight data is examined regionally the statistics vary from 1.6 percent to 5.0 percent. The central part of the state "Oahe Area" reflects the lowest number and the Northern Black Hills region of the state shows the highest rate of underweight among the PedNSS population less than 5 years of age. Appendix B shows the counties making up each of these Regions.



- * < 5th percentile weight-for-length or BMI-for-age, CDC Growth Charts, 2000.
 5% of children are expected to fall below the 5th percentile.
- ** Data for some regions not presented if <100 records are available for analysis after exclusions.

Table 10 (Continued)

Pediatric Nutrition Surveillance System Low Weight-for-Height Reporting Period 01/01/2005 to 12/31/2005

Daniau**	1 14	2005 Data	inht (4)		ear Data (20	,
Region**		leight-for-He	, , , , , , , , , , , , , , , , , , , 		eight-for-He	
	Total	Percent	Confidence	Total	Percent	Confidence
	Records		Interval (±)	Records		Interval (±)
Aberdeen Area	972	4.5%	1.1%	2,977	3.7%	0.6%
East Central	885	2.5%	0.9%	2,557	2.3%	0.5%
Huron-Redfield	644	4.2%	1.3%	1,824	4.3%	0.8%
Mitchell-Chamberlain	887	2.8%	0.9%	2,577	2.8%	0.5%
Northern Black Hills	844	5.0%	1.3%	2,534	4.5%	0.7%
Northeast Area	1,495	2.4%	0.7%	4,378	3.0%	0.4%
North Central	283	2.1%	1.4%	916	3.4%	1.0%
Northwest Area	524	2.9%	1.2%	1,581	3.9%	0.8%
Oahe Area	698	1.6%	0.8%	2,139	2.3%	0.5%
Pickstown Area	933	3.3%	1.0%	2,791	3.0%	0.5%
Pine Ridge Area	1,769	3.7%	0.8%	5,263	3.6%	0.4%
Rapid City Area	3,935	3.1%	0.5%	11,661	3.3%	0.3%
Southeast Area	942	3.5%	1.0%	2,840	3.6%	0.6%
Sioux Falls Area	3,564	3.5%	0.5%	10,766	3.4%	0.3%
Sioux Empire Area	612	2.5%	1.1%	1,789	2.4%	0.6%
South Central	720	1.9%	0.8%	2,212	2.8%	0.6%
Southern Black Hills	289	3.5%	1.8%	902	3.4%	1.0%
Statewide PedNSS	19,996	3.2%	0.2%	59,707	3.3%	0.1%
National 2004		4.7%				

⁽⁴⁾ Low Weight-For-Height: less than 5th percentile based on 2000 CDC growth chart percentiles for weight-for-length for children under 2 years of age and height-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.

^{**} Counties by regions and regions by county conversion tables are in Appendix A and Appendix B.

Pediatric Nutrition Surveillance System
High Weight-for-Height
Reporting Period 01/01/2005 to 12/31/2005

Table 11

		2005 Data		Three Y	ear Data (20	03-2005)
County	High W	/eight-for-He		High W	leight-for-He	
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
	Records		Interval (±)	Records		Interval (±)
Aurora	60	*	*	201	14.9%	4.5%
Plankinton	60	*	*	201	14.9%	4.5%
Beadle	497	11.7%	2.5%	1,417	11.3%	1.5%
Huron	497	11.7%	2.5%	1,417	11.3%	1.5%
Bennett	216	21.3%	5.2%	627	22.5%	3.1%
Martin	216	21.3%	5.2%	627	22.5%	3.1%
Bon Homme	156	12.2%	4.6%	472	11.4%	2.6%
Tyndall	156	12.2%	4.6%	472	11.4%	2.6%
Brookings	512	9.4%	2.2%	1,480	10.1%	1.4%
Brookings	512	9.4%	2.2%	1,480	10.1%	1.4%
Brown	740	11.2%	2.0%	2,305	11.7%	1.2%
Aberdeen	740	11.2%	2.0%	2,305	11.7%	1.2%
Brule	128	17.2%	6.0%	358	13.4%	3.2%
Chamberlain	106	16.0% *	6.4%	296	13.2%	3.5%
Kimball	22			62		
Buffalo	235	28.1%	5.7%	702	24.6%	3.1%
Ft. Thompson	235	28.1%	5.7%	702	24.6%	3.1%
Butte	330	12.4%	3.2%	960	12.4%	1.9%
Belle Fourche	287	13.9%	3.6%	821	13.4%	2.1%
Newell	43			139	6.5%	3.6%
Charles Mix	511	18.4%	3.1%	1,495	17.6%	1.8%
Lake Andes	145	15.9% *	5.4%	429	16.1%	3.2%
Platte	61			164	9.1%	3.9%
Wagner	305	21.6%	4.4%	902	19.8%	2.4%
Clark Clark	77 77	*	*	228 228	13.2%	4.0% 4.0%
					13.2%	
Clay Vermillion	278 278	6.8%	2.6%	854 854	8.3% 8.3%	1.6% 1.6%
	664	6.8% 12.5%	2.6% 2.3%		13.1%	1.0%
Codington Watertown	664	12.5%		2,017		
Corson	13	12.5%	2.3%	2,017 37	13.1%	1.3%
McLaughlin	13	*	*	37 37	*	*
		40.49/	5.0%		11.5%	3.1%
Custer Custer	109 109	10.1% 10.1%	5.0% 5.0%	330 330	11.5%	3.1%
Davison	524	10.1% 12.8%	2.6%	1,509	11.9%	1.5%
Mitchell	524 524	12.8%	2.6%	1,509	11.9%	1.5%
	160	13.1%	4.7%	486	12.6%	2.6%
Day Webster	160	13.1%	4.7%	486 486	12.6%	2.6%
Deuel	57	13.170	4.1 /0 *	173	8.1%	3.6%
Clear Lake	57 57	*	*	173	8.1%	3.6%
Oleai Lake	57			1/3	0.170	3.0%

⁽⁵⁾ High Weight-For-Height: greater than or equal to 95th percentile based on 2000 CDC growth chart percentiles for weight-for-length for children under 2 years of age and BMI-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Table 11 (Continued)

Pediatric Nutrition Surveillance System High Weight-for-Height Reporting Period 01/01/2005 to 12/31/2005

	l	2005 Data			ear Data (20	
County		/eight-for-He			/eight-for-He	
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
	Records	*	Interval (±)	Records	40.00/	Interval (±)
Dewey	60	*	*	181	13.8%	4.5%
Isabel	21	*	*	53	44.00/	5.00/
Timber Lake	39	*	*	128	14.8%	5.6%
Douglas	47	*	*	166	12.0%	4.4%
Armour	47	*	*	166	12.0%	4.4%
Edmunds	52	*	*	161	10.6%	4.2%
Bowdle	34	*	*	112	7.1%	4.1%
Ipswich	18			49		
Fall River	180	11.1%	4.1%	572	10.7%	2.2%
Hot Springs	180	11.1%	4.1%	572	10.7%	2.2%
Faulk	33	*	*	112	12.5%	5.5%
Faulkton	33			112	12.5%	5.5%
Grant	164	16.5%	5.2%	501	12.0%	2.5%
Milbank	164	16.5%	5.2%	501	12.0%	2.5%
Gregory	104	8.7% *	4.8%	319	10.7% *	3.0%
Bonesteel	32	*	*	82		
Burke	72			237	8.0%	3.0%
Haakon	36	*	*	119	8.4%	4.4%
Philip	36		*	119	8.4%	4.4%
Hamlin	160	11.3%	4.4%	477	10.1%	2.4%
Hayti	160	11.3%	4.4%	477	10.1%	2.4%
Hand	53	*	*	195	6.2%	2.9%
Miller	53			195	6.2%	2.9%
Hanson	76	*	*	247	8.1%	3.0%
Alexandria	76		*	247	8.1%	3.0%
Harding	14	*	*	41	*	*
Buffalo	14			41		
Hughes	395	19.0%	3.6%	1,229	19.9%	2.1%
Pierre	395	19.0%	3.6%	1,229	19.9%	2.1%
Hutchinson	115	11.3%	5.2%	339	10.0%	2.8%
Freeman	68	*	*	186	10.8%	4.0%
Parkston	47	*	*	153	9.2%	4.0%
Hyde	44	*	*	137	19.0%	6.1%
Highmore	44	*	*	137	19.0%	6.1%
Jackson	212	21.2%	5.2%	663	21.7%	3.0%
Kadoka	42	*	*	144	17.4%	5.7%
Wanblee	170	23.5%	6.1%	519	22.9%	3.5%
Jerauld	46	*	*	126	12.7%	5.2%
Wessington Springs	46	*	*	126	12.7%	5.2%
Jones	35	*	*	124	6.5%	3.8%
Murdo	35	*	*	124	6.5%	3.8%

⁽⁵⁾ High Weight-For-Height: greater than or equal to 95th percentile based on 2000 CDC growth chart percentiles for weight-for-length for children under 2 years of age and BMI-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Table 11 (Continued)

Pediatric Nutrition Surveillance System High Weight-for-Height Reporting Period 01/01/2005 to 12/31/2005

County	High W	2005 Data /eight-for-He	eight (5)		ear Data (20 /eight-for-He	
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
	Records		Interval (±)	Records		Interval (±)
Kingsbury	47	*	*	139	10.1%	4.4%
De Smet	47	*	*	139	10.1%	4.4%
Lake	188	16.5%	4.9%	588	12.6%	2.4%
Madison	188	16.5%	4.9%	588	12.6%	2.4%
Lawrence	460	11.7%	2.6%	1,344	10.6%	1.5%
Deadwood	124	10.5%	4.8%	399	8.8%	2.4%
Spearfish	336	12.2%	3.1%	945	11.4%	1.8%
Lincoln	153	13.1%	4.8%	397	15.1%	3.2%
Canton	153	13.1%	4.8%	397	15.1%	3.2%
Lyman	240	14.6%	4.1%	737	16.0%	2.4%
Kennebec	38	*	*	122	15.6%	5.9%
Lower Brule	202	15.3%	4.5%	615	16.1%	2.7%
Marshall	72	*	*	186	15.1%	4.7%
Britton	72	*	*	186	15.1%	4.7%
McCook	124	16.9%	6.1%	356	13.8%	3.2%
Salem	124	16.9%	6.1%	356	13.8%	3.2%
McPherson	37	*	*	120	10.0%	4.7%
Eureka	18	*	*	61	*	*
Leola	19	*	*	59	*	*
Meade	384	9.9%	2.6%	1,190	11.1%	1.6%
Faith	43	*	*	144	13.9%	5.1%
Sturgis	341	10.6%	2.9%	1,046	10.7%	1.7%
Miner	28	*	*	119	5.9%	3.7%
Howard	28	*	*	119	5.9%	3.7%
Minnehaha	3,564	14.4%	1.0%	10,766	14.0%	0.6%
Sioux Falls	3,564	14.4%	1.0%	10,766	14.0%	0.6%
Moody	166	16.9%	5.2%	461	16.9%	3.1%
Flandreau	166	16.9%	5.2%	461	16.9%	3.1%
Pennington	3,935	11.7%	0.9%	11,661	11.6%	0.5%
Ellsworth	420	4.3%	1.7%	1,426	5.5%	1.0%
Hill City	91	*	*	238	11.8%	3.7%
Rapid City	3,397	12.5%	1.0%	9,901	12.4%	0.6%
Wall	27	*	*	96	*	*
Perkins	90	*	*	289	8.7%	2.9%
Bison	35	*	*	95	*	*
Lemmon	55	*	*	194	10.3%	3.8%

⁽⁵⁾ High Weight-For-Height: greater than or equal to 95th percentile based on 2000 CDC growth chart percentiles for weight-for-length for children under 2 years of age and BMI-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Table 11 (Continued)

Pediatric Nutrition Surveillance System High Weight-for-Height Reporting Period 01/01/2005 to 12/31/2005

County Clinic Potter Hoven Roberts Sisseton Sanborn Woonsocket	Total Records 49 49 533 533	/eight-for-He	Confidence Interval (±)	Total Records	/eight-for-He Percent	Confidence
Potter Hoven Roberts Sisseton Sanborn	Records 49 49 533	*	Interval (±)	Records	1 Crociii	
Hoven Roberts Sisseton Sanborn	49 49 533	*	*			Interval (±)
Hoven Roberts Sisseton Sanborn	49 533			157	12.1%	4.6%
Roberts Sisseton Sanborn			*	157	12.1%	4.6%
Sanborn	533	15.9%	2.8%	1,459	16.4%	1.7%
	555	15.9%	2.8%	1,459	16.4%	1.7%
Woonsocket	53	*	*	136	11.8%	4.8%
	53	*	*	136	11.8%	4.8%
Shannon	1,341	17.2%	1.9%	3,973	16.6%	1.1%
Kyle	361	21.9%	4.1%	1,054	22.7%	2.4%
Manderson	85	*	*	282	16.3%	4.0%
Pine Ridge	771	15.7%	2.3%	2,269	14.6%	1.3%
Porcupine	124	11.3%	5.0%	368	11.4%	2.9%
Spink	147	14.3%	5.1%	407	14.0%	3.1%
Redfield	147	14.3%	5.1%	407	14.0%	3.1%
Stanley	139	15.1%	5.4%	373	15.5%	3.4%
Ft. Pierre	139	15.1%	5.4%	373	15.5%	3.4%
Sully	18	*	*	48	*	*
Onida	18	*	*	48	*	*
Tripp	174	19.5%	5.5%	530	16.4%	2.9%
Winner	174	19.5%	5.5%	530	16.4%	2.9%
Turner	119	12.6%	5.4%	329	11.9%	3.1%
Parker	55	*	*	139	13.7%	5.2%
Viborg	64	*	*	190	10.5%	3.9%
Union	115	16.5%	6.2%	410	17.3%	3.4%
Elk Point	115	16.5%	6.2%	410	17.3%	3.4%
Walworth	148	11.5%	4.6%	486	13.4%	2.7%
Mobridge	136	12.5%	5.0%	437	14.4%	3.0%
Selby	12	*	*	49	*	*
Yankton	549	13.3%	2.6%	1,576	15.9%	1.7%
Yankton	549	13.3%	2.6%	1,576	15.9%	1.7%
Ziebach	30	*	*	110	8.2%	4.5%
Dupree	30	*	*	110	8.2%	4.5%
Statewide PedNSS	19,996	13.6%	0.4%	59,707	13.5%	0.2%
National 2004	10,000	14.1%	01-170	55,.5.	10.070	0.270

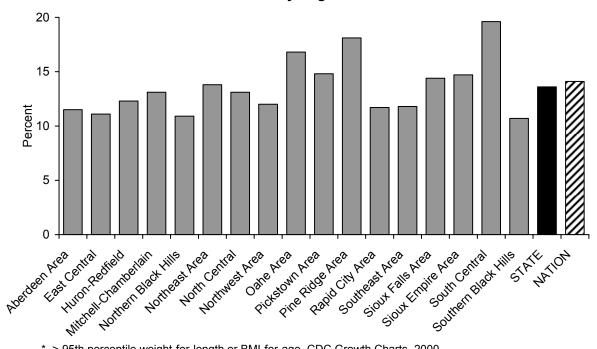
⁽⁵⁾ High Weight-For-Height: greater than or equal to 95th percentile based on 2000 CDC growth chart percentiles for weight-for-length for children under 2 years of age and BMI-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Regional Overweight Data

When the overweight data is examined regionally the statistics vary from 10.9 percent to 19.6 percent. The Southern Black Hills region reflects the lowest number and the South Central part of the state shows the highest rate of overweight among the PedNSS population less than 5 years of age. Appendix B shows the counties making up each of these Regions.

Figure 16
2005 South Dakota PedNSS
Prevalence of Overweight*
Among Children Aged <5 Years
by Region**



- * > 95th percentile weight-for-length or BMI-for-age, CDC Growth Charts, 2000. 5% of children are expected to fall above the 95th percentile.
- ** Data for some regions not presented if <100 records are available for analysis after exclusions.

Table 12 (Continued)

Pediatric Nutrition Surveillance System High Weight-for-Height Reporting Period 01/01/2005 to 12/31/2005

Region**	∐iah M	2005 Data /eight-for-He	sight (E)		ear Data (20 eight-for-He	
Region	Total	Percent	Confidence	Total	Percent	Confidence
	Records	Percent	Interval (±)	Records	Percent	Interval (±)
Aberdeen Area	972	11.5%	1.8%	2,977	12.0%	1.0%
East Central	885	11.1%	1.8%	2,557	11.3%	1.1%
Huron-Redfield	644	12.3%	2.3%	1,824	11.9%	1.3%
Mitchell-Chamberlain	887	13.1%	2.0%	2,577	12.0%	1.1%
Northern Black Hills	844	10.9%	1.9%	2,534	10.9%	1.1%
Northeast Area	1,495	13.8%	1.6%	4,378	13.9%	0.9%
North Central	283	13.1%	3.5%	916	12.3%	1.9%
Northwest Area	524	12.0%	2.5%	1,581	11.6%	1.4%
Oahe Area	698	16.8%	2.6%	2,139	17.3%	1.5%
Pickstown Area	933	14.8%	2.1%	2,791	14.5%	1.2%
Pine Ridge Area	1,769	18.1%	1.7%	5,263	17.9%	1.0%
Rapid City Area	3,935	11.7%	0.9%	11,661	11.6%	0.5%
Southeast Area	942	11.8%	1.8%	2,840	13.8%	1.1%
Sioux Falls Area	3,564	14.4%	1.0%	10,766	14.0%	0.6%
Sioux Empire Area	612	14.7%	2.5%	1,789	12.8%	1.4%
South Central	720	19.6%	2.7%	2,212	17.9%	1.5%
Southern Black Hills	289	10.7%	3.2%	902	11.0%	1.8%
Statewide PedNSS	19,996	13.6%	0.4%	59,707	13.5%	0.2%
National 2004		14.1%				

⁽⁵⁾ High Weight-For-Height: greater than or equal to 95th percentile based on 2000 CDC growth chart percentiles for weight-for-length for children under 2 years of age and BMI-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.

^{**} Counties by regions and regions by county conversion tables are in Appendix A and Appendix B.

Overweight and At Risk of Overweight (2 to 5 years of age)

Children 2 years and older that have a BMI-for-age at or above the 95th percentile in the CDC's reference population of children matched for age, height, and sex are defined as overweight. Children 2 years and older whose BMI-for-age is between the 85th percentile but below the 95th percentile are defined as "At risk of overweight".

Obesity is defined as an excessive deposit of adipose tissue. A measure of weight-for-height above the 95th percentile does not measure fat tissue; it indicates but does not define obesity.

Obesity is a risk factor for the following conditions in adulthood: cardiovascular disease, hypertension, diabetes, degenerative joint disease, and psychological problems. Studies show that 26 percent of overweight children (BMI above 95th percentile) 1-3 years will be obese at age 25 and 52 percent of overweight children 3 to 6 years will be obese at age 25. Whitaker et al. NEJM:1997;337:869-873.

Figure 17 **South Dakota PedNSS** Prevalence of Overweight and at Risk of Overweight* Among Children Aged 2 to <5 Years, by Race 25 ■ Overweight ☐ Risk of overweight 20 Percent 15 10 5 0 White Black American Asian SD (2005) US (2004) Indian

* Overweight: > 95th percentile weight-for-length or BMI-for-age; at risk of overweight: > 85th-<95th percentile weight-for-length or BMI-for-age, CDC Growth Charts, 2000. 15% of children are expected to fall above the 85th percentile (5% above the 95th percentile and 10% between the 85th and 95th percentiles).

Healthy People 2010 Goal: There are no Healthy People 2010 goals for overweight preschool children. The Healthy People 2010 target for the reduction of overweight or obese children age 6 to 11 is 5 percent.

The 2005 rate of overweight, ages 2 to 5 years, in South Dakota's PedNSS records was 13.9 percent, unchanged from 13.9 percent in 2004. The South Dakota PedNSS population rate for overweight children was 13.8 percent for the three-year period 2003-2005. The United States PedNSS population rate for overweight children was 14.8 percent in calendar year 2004.

The percent prevalence of overweight (greater than or equal to 95th percentile) and at risk of overweight (85th to 95th percentile) children by race/ethnicity and age are as follows:

Race/Ethnicity	At Risk of	Overweight	Overweight and
•	Overweight	(≥95th percentile)	At Risk of
	(85th to 95th		Overweight
	percentile)		(≥85th percentile)
White	17.4	11.9	29.3
Black	16.0	14.9	30.9
American Indian/Alaska Native	20.0	18.4	38.4
Age			
2 years	18.8	14.3	33.1
3 years	17.2	13.6	30.8
4 years	18.2	13.8	32.0

Table 13

Pediatric Nutrition Surveillance System
At Risk of Overweight - Ages 2 to 5 Years
Reporting Period 01/01/2005 to 12/31/2005

		2005 Data			ear Data (20	
County		k of Overwe			k of Overwe	
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
_	Records	*	Interval (±)	Records	40.00/	Interval (±)
Aurora	29	*	*	102	19.6%	7.2%
Plankinton	29			102	19.6%	7.2%
Beadle	233	16.7%	4.4%	634	18.5%	2.8%
Huron	233	16.7%	4.4%	634	18.5%	2.8%
Bennett	107	22.4%	7.5%	291	21.3%	4.5%
Martin	107	22.4%	7.5%	291	21.3%	4.5%
Bon Homme	67	*	*	222	16.2%	4.4%
Tyndall	67			222	16.2%	4.4%
Brookings	219	14.6%	4.2%	636	14.0%	2.4%
Brookings	219	14.6%	4.2%	636	14.0%	2.4%
Brown	309	18.1%	4.0%	959	16.3%	2.1%
Aberdeen	309	18.1%	4.0%	959	16.3%	2.1%
Brule	57	*	*	174	19.0%	5.4%
Chamberlain	48	*	*	143	20.3%	6.2%
Kimball	9		*	31	*	
Buffalo	113	25.7%	7.8%	317	24.6%	4.6%
Ft. Thompson	113	25.7%	7.8%	317	24.6%	4.6%
Butte	141	19.1%	6.1%	441	17.2%	3.2%
Belle Fourche	122	21.3%	6.9%	373	18.5% *	3.7%
Newell	19			68		
Charles Mix	236	19.9%	4.8%	707	19.9%	2.8%
Lake Andes	68	*	*	209	13.9% *	4.2%
Platte	27			81		
Wagner	141	23.4%	6.7%	417	22.3%	3.8%
Clark	40	*	*	110	20.9%	7.2%
Clark	40			110	20.9%	7.2%
Clay	122	18.9%	6.5%	384	18.0%	3.6%
Vermillion	122	18.9%	6.5%	384	18.0%	3.6%
Codington	243	19.3%	4.6%	824	19.5%	2.5%
Watertown	243	19.3%	4.6%	824	19.5%	2.5%
Corson	6	*	*	21		
McLaughlin	6	*	*	21	*	*
Custer	53	*	*	158	18.4%	5.6%
Custer	53	*	*	158	18.4%	5.6%
Davison	203	19.7%	5.1%	584	21.6%	3.2%
Mitchell	203	19.7%	5.1%	584	21.6%	3.2%
Day	78	*	*	245	9.4%	3.2%
Webster	78	*	*	245	9.4%	3.2%
Deuel	26	*	*	85	*	*
Clear Lake	26	*	*	85	*	*

Shaded rows indicate the three-year data are significantly higher than the state three-year data at the 0.05 level. (6) At Risk of Overweight: 85th to 95th percentile based on BMI-for-age for children 2 years of age and older; excludes

records with biologically implausible values for height, age, and weight.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Table 13 (Continued)

Pediatric Nutrition Surveillance System At Risk of Overweight - Ages 2 to 5 Years Reporting Period 01/01/2005 to 12/31/2005

0	At Dis	2005 Data	(-l-1 (0)		ear Data (20	
County		k of Overwei			k of Overwe	
Clinic	Total Records	Percent	Confidence Interval (±)	Total Records	Percent	Confidence Interval (±)
Dewey	32	*	*	85	*	*
Isabel	9	*	*	21	*	*
Timber Lake	23	*	*	64	*	*
Douglas	28	*	*	97	*	*
Armour	28	*	*	97	*	*
Edmunds	26	*	*	88	*	*
Bowdle	17	*	*	65	*	*
Ipswich	9	*	*	23	*	*
Fall River	74	*	*	247	13.0%	3.8%
Hot Springs	74	*	*	247	13.0%	3.8%
Faulk	20	*	*	58	*	*
Faulkton	20	*	*	58	*	*
Grant	76	*	*	219	16.4%	4.5%
Milbank	76	*	*	219	16.4%	4.5%
Gregory	44	*	*	144	17.4%	5.7%
Bonesteel	18	*	*	42	*	*
Burke	26	*	*	102	14.7%	6.2%
Haakon	23	*	*	68	*	*
Philip	23	*	*	68	*	*
Hamlin	84	*	*	227	13.7%	4.0%
Hayti	84	*	*	227	13.7%	4.0%
Hand	30	*	*	101	11.9%	5.6%
Miller	30	*	*	101	11.9%	5.6%
Hanson	38	*	*	125	16.8%	6.0%
Alexandria	38	*	*	125	16.8%	6.0%
Harding	6	*	*	17	*	*
Buffalo	6	*	*	17	*	*
Hughes	170	21.2%	5.8%	526	24.0%	3.5%
Pierre	170	21.2%	5.8%	526	24.0%	3.5%
Hutchinson	59	*	*	164	23.2%	6.2%
Freeman	36	*	*	89	*	*
Parkston	23	*	*	75	*	*
Hyde	26	*	*	82	*	*
Highmore	26	*	*	82	*	*
Jackson	117	20.5%	6.9%	342	20.8%	4.1%
Kadoka	23	*	*	78	*	*
Wanblee	94	*	*	264	22.0%	4.7%
Jerauld	23	*	*	58	*	*
Wessington Springs	23	*	*	58	*	*
Jones	13	*	*	62	*	*
Murdo	13	*	*	62	*	*

⁽⁶⁾ At Risk of Overweight: 85th to 95th percentile based on BMI-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Table 13 (Continued)

Pediatric Nutrition Surveillance System At Risk of Overweight - Ages 2 to 5 Years Reporting Period 01/01/2005 to 12/31/2005

County	At Ris	2005 Data k of Overwe	ight (6)	Three Year Data (2003-2005) At Risk of Overweight (6)		
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
	Records		Interval (±)	Records		Interval (±)
Kingsbury	27	*	*	74	*	*
De Smet	27	*	*	74	*	*
Lake	75	*	*	249	18.9%	4.5%
Madison	75	*	*	249	18.9%	4.5%
Lawrence	185	13.5%	4.4%	534	12.9%	2.6%
Deadwood	44	*	*	156	11.5%	4.5%
Spearfish	141	13.5%	5.1%	378	13.5%	3.1%
Lincoln	62	*	*	171	15.8%	5.0%
Canton	62	*	*	171	15.8%	5.0%
Lyman	127	19.7%	6.5%	380	18.7%	3.6%
Kennebec	24	*	*	73	*	*
Lower Brule	103	19.4%	7.1%	307	19.9%	4.2%
Marshall	31	*	*	92	*	*
Britton	31	*	*	92	*	*
McCook	59	*	*	163	18.4%	5.5%
Salem	59	*	*	163	18.4%	5.5%
McPherson	21	*	*	62	*	*
Eureka	11	*	*	32	*	*
Leola	10	*	*	30	*	*
Meade	175	16.0%	5.0%	554	16.6%	2.8%
Faith	26	*	*	80	*	*
Sturgis	149	15.4%	5.3%	474	15.2%	2.9%
Miner	12	*	*	60	*	*
Howard	12	*	*	60	*	*
Minnehaha	1,238	19.8%	2.1%	3,955	19.4%	1.2%
Sioux Falls	1,238	19.8%	2.1%	3,955	19.4%	1.2%
Moody	70	*	*	200	19.5%	5.1%
Flandreau	70	*	*	200	19.5%	5.1%
Pennington	1,663	18.5%	1.7%	4,866	17.8%	1.0%
Ellsworth	163	9.8%	4.0%	570	8.9%	2.1%
Hill City	43	*	*	111	17.1%	6.5%
Rapid City	1,439	19.5%	1.9%	4,129	19.2%	1.1%
Wall	18	*	*	56	*	*
Perkins	49	*	*	150	14.0%	5.0%
Bison	20	*	*	52	*	*
Lemmon	29	*	*	98	*	*

⁽⁶⁾ At Risk of Overweight: 85th to 95th percentile based on BMI-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Table 13 (Continued)

Pediatric Nutrition Surveillance System At Risk of Overweight - Ages 2 to 5 Years Reporting Period 01/01/2005 to 12/31/2005

County	Δt Ris	2005 Data k of Overwe	ight (6)	Three Y	Three Year Data (2003-2005) At Risk of Overweight (6)		
Clinic	Total	Percent	Confidence	Total	Percent	Confidence	
	Records	1 0100111	Interval (±)	Records	. Groom	Interval (±)	
Potter	29	*	*	86	*	*	
Hoven	29	*	*	86	*	*	
Roberts	222	21.2%	5.1%	618	18.0%	2.8%	
Sisseton	222	21.2%	5.1%	618	18.0%	2.8%	
Sanborn	26	*	*	62	*	*	
Woonsocket	26	*	*	62	*	*	
Shannon	564	13.8%	2.6%	1,680	14.9%	1.5%	
Kyle	159	23.9%	6.4%	461	23.2%	3.7%	
Manderson	38	*	*	110	3.6%	3.0%	
Pine Ridge	301	10.0%	3.0%	932	12.6%	1.9%	
Porcupine	66	*	*	177	13.0%	4.5%	
Spink	74	*	*	184	17.9%	5.1%	
Redfield	74	*	*	184	17.9%	5.1%	
Stanley	69	*	*	185	21.1%	5.6%	
Ft. Pierre	69	*	*	185	21.1%	5.6%	
Sully	7	*	*	20	*	*	
Onida	7	*	*	20	*	*	
Tripp	72	*	*	251	15.9%	4.1%	
Winner	72	*	*	251	15.9%	4.1%	
Turner	54	*	*	149	16.1%	5.4%	
Parker	21	*	*	56	*	*	
Viborg	33	*	*	93	*	*	
Union	46	*	*	165	13.3%	4.7%	
Elk Point	46	*	*	165	13.3%	4.7%	
Walworth	72	*	*	239	23.0%	5.1%	
Mobridge	67	*	*	221	24.4%	5.5%	
Selby	5	*	*	18	*	*	
Yankton	218	19.3%	4.9%	647	18.7%	2.8%	
Yankton	218	19.3%	4.9%	647	18.7%	2.8%	
Ziebach	13	*	*	59	*	*	
Dupree	13	*	*	59	*	*	
Statewide PedNSS	8,431	18.1%	0.8%	25,459	18.0%	0.4%	
National 2004		16.1%					

Shaded rows indicate the three-year data are significantly higher than the state three-year data at the 0.05 level.

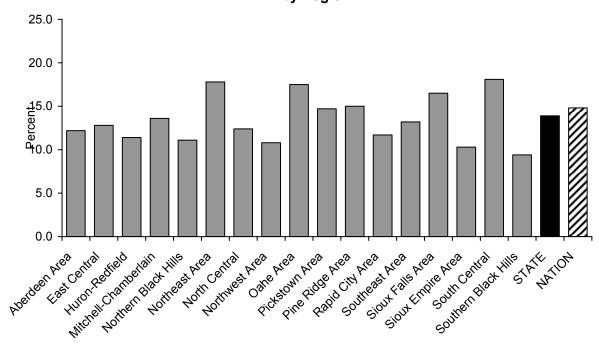
(6) At Risk of Overweight: 85th to 95th percentile based on BMI-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Regional At Risk of Overweight Data - Ages 2 to 5 Years

When the risk of overweight data is examined regionally the statistics vary from 11.8 percent to 21.6 percent. The Southern Black Hills region reflects the lowest number and the South Central part of the state shows the highest risk of overweight for those PedNSS children ages 2 to 5 years of age. Appendix B shows the counties making up each of these Regions.

Figure 18
2005 South Dakota PedNSS
Prevalence of Risk of Overweight*
Among Children Aged 2 to <5 Years
by Region**



- * At risk of overweight: > 85th-<95th percentile BMI-for-age. 15% of children are expected to fall above the 85th percentile.
- ** Data for some regions not presented if <100 records are available for analysis after exclusions.

Table 14

Pediatric Nutrition Surveillance System
At Risk of Overweight - Ages 2 to 5 Years
Reporting Period 01/01/2005 to 12/31/2005

		2005 Data		Three Year Data (2003-2005) At Risk of Overweight (6)		
Region**	At Ris	k of Overwei	ight (6)			
	Total	Percent	Confidence	Total	Percent	Confidence
	Records		Interval (±)	Records		Interval (±)
Aberdeen Area	418	17.2%	3.3%	1,296	15.4%	1.8%
East Central	400	15.5%	3.2%	1,137	15.7%	1.9%
Huron-Redfield	307	18.9%	4.1%	818	18.3%	2.5%
Mitchell-Chamberlain	376	19.4%	3.7%	1,105	20.0%	2.2%
Northern Black Hills	360	14.7%	3.3%	1,088	14.8%	1.9%
Northeast Area	607	19.9%	3.0%	1,856	18.9%	1.7%
North Central	145	15.2%	5.3%	468	16.2%	3.1%
Northwest Area	241	17.0%	4.4%	752	16.6%	2.4%
Oahe Area	331	18.4%	3.9%	1,000	21.1%	2.4%
Pickstown Area	434	17.1%	3.3%	1,334	19.2%	2.0%
Pine Ridge Area	788	16.0%	2.3%	2,313	16.6%	1.4%
Rapid City Area	1,663	18.5%	1.7%	4,866	17.8%	1.0%
Southeast Area	386	18.9%	3.6%	1,196	17.7%	2.0%
Sioux Falls Area	1,238	19.8%	2.1%	3,955	19.4%	1.2%
Sioux Empire Area	262	17.9%	4.3%	792	17.7%	2.5%
South Central	348	21.6%	4.1%	1,078	20.0%	2.2%
Southern Black Hills	127	11.8%	5.0%	405	15.1%	3.2%
Statewide PedNSS	8,431	18.1%	0.8%	25,459	18.0%	0.4%
National 2004		16.1%				

Shaded rows indicate the three-year data are significantly higher than the state three-year data at the 0.05 level. (6) At Risk of Overweight: 85th to 95th percentile based on BMI-for-age for children 2 years of age and older; excludes

⁽⁶⁾ At Risk of Overweight: 85th to 95th percentile based on BMI-for-age for children 2 years of age and older; exclude records with biologically implausible values for height, age, and weight.

^{**} Counties by regions and regions by county conversion tables are in Appendix A and Appendix B.

Table 15 **Pediatric Nutrition Surveillance System** Overweight - Ages 2 to 5 Years Reporting Period 01/01/2005 to 12/31/2005

County		2005 Data Overweight (7)	Three Year Data (2003-2005) Overweight (7)			
Clinic	Total	Percent	Confidence	Total	Percent	Confidence	
Cillic	Records	Percent	Interval (±)	Records	Percent	Interval (±)	
Aurora	29	*	*	102	17.6%	6.8%	
Plankinton	29	*	*	102	17.6%	6.8%	
Beadle	233	11.6%	3.7%	634	10.3%	2.1%	
Huron	233	11.6%	3.7%	634	10.3%	2.1%	
Bennett	107	18.7%	6.9%	291	22.3%	4.6%	
Martin	107	18.7%	6.9%	291	22.3%	4.6%	
Bon Homme	67	*	*	222	11.3%	3.7%	
Tyndall	67	*	*	222	11.3%	3.7%	
Brookings	219	10.5%	3.6%	636	8.6%	1.9%	
Brookings	219	10.5%	3.6%	636	8.6%	1.9%	
Brown	309	11.7%	3.2%	959	11.9%	1.8%	
Aberdeen	309	11.7%	3.2%	959	11.9%	1.8%	
Brule	57	*	*	174	12.1%	4.3%	
Chamberlain	48	*	*	143	12.6%	4.9%	
Kimball	9	*	*	31	*	*	
Buffalo	113	29.2%	8.4%	317	24.0%	4.5%	
Ft. Thompson	113	29.2%	8.4%	317	24.0%	4.5%	
Butte	141	12.1%	4.8%	441	12.0%	2.7%	
Belle Fourche	122	13.1%	5.4%	373	13.4%	3.1%	
Newell	19	*	*	68	*	*	
Charles Mix	236	16.1%	4.3%	707	15.1%	2.4%	
Lake Andes	68	*	*	209	9.1%	3.4%	
Platte	27	*	*	81	*	*	
Wagner	141	19.9%	6.2%	417	19.4%	3.5%	
Clark	40	*	*	110	12.7%	5.6%	
Clark	40			110	12.7%	5.6%	
Clay	122	9.0%	4.5%	384	11.7%	2.9%	
Vermillion	122	9.0%	4.5%	384	11.7%	2.9%	
Codington	243	16.9%	4.3%	824	16.1%	2.3%	
Watertown	243	16.9%	4.3%	824	16.1%	2.3%	
Corson	6	*	*	21	*	*	
McLaughlin	6	*	*	21			
Custer	53	*	*	158	11.4%	4.4%	
Custer	53			158	11.4%	4.4%	
Davison	203	14.3%	4.4%	584	14.2%	2.6%	
Mitchell	203	14.3%	4.4%	584	14.2%	2.6%	
Day	78 70	*	*	245	8.6%	3.1%	
Webster	78	*	*	245	8.6%	3.1%	
Deuel	26	*	*	85	*	*	
Clear Lake	26			85			

 ⁽⁷⁾ Overweight: greater than or equal to 95th percentile based on BMI-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.
 * Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of

reliability or precision.

Table 15 (Continued)

Pediatric Nutrition Surveillance System Overweight - Ages 2 to 5 Years Reporting Period 01/01/2005 to 12/31/2005

County		2005 Data Overweight (7	7)	Three Year Data (2003-2005) Overweight (7)			
Clinic	Total Records	Percent	Confidence Interval (±)	Total Records	Percent	Confidence Interval (±)	
Dewey	32	*	*	85	*	*	
Isabel	9	*	*	21	*	*	
Timber Lake	23	*	*	64	*	*	
Douglas	28	*	*	97	*	*	
Armour	28	*	*	97	*	*	
Edmunds	26	*	*	88	*	*	
Bowdle	17	*	*	65	*	*	
Ipswich	9	*	*	23	*	*	
Fall River	74	*	*	247	11.3%	3.5%	
Hot Springs	74	*	*	247	11.3%	3.5%	
Faulk	20	*	*	58	*	*	
Faulkton	20	*	*	58	*	*	
Grant	76	*	*	219	14.6%	4.2%	
Milbank	76	*	*	219	14.6%	4.2%	
Gregory	44	*	*	144	10.4%	4.4%	
Bonesteel	18	*	*	42	*	*	
Burke	26	*	*	102	7.8%	4.5%	
Haakon	23	*	*	68	*	*	
Philip	23	*	*	68	*	*	
Hamlin	84	*	*	227	7.9%	3.1%	
Hayti	84	*	*	227	7.9%	3.1%	
Hand	30	*	*	101	3.0%	2.8%	
Miller	30	*	*	101	3.0%	2.8%	
Hanson	38	*	*	125	9.6%	4.6%	
Alexandria	38	*	*	125	9.6%	4.6%	
Harding	6	*	*	17	*	*	
Buffalo	6	*	*	17	*	*	
Hughes	170	22.9%	6.0%	526	20.9%	3.3%	
Pierre	170	22.9%	6.0%	526	20.9%	3.3%	
Hutchinson	59	*	*	164	9.1%	3.9%	
Freeman	36	*	*	89	*	*	
Parkston	23	*	*	75	*	*	
Hyde	26	*	*	82	*	*	
Highmore	26	*	*	82	*	*	
Jackson	117	15.4%	6.0%	342	21.3%	4.1%	
Kadoka	23	*	*	78	*	*	
Wanblee	94	*	*	264	22.0%	4.7%	
Jerauld	23	*	*	58	*	*	
Wessington Springs	23	*	*	58	*	*	
Jones	13	*	*	62	*	*	
Murdo	13	*	*	62	*	*	

⁽⁷⁾ Overweight: greater than or equal to 95th percentile based on BMI-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Table 15 (Continued)

Pediatric Nutrition Surveillance System Overweight - Ages 2 to 5 Years Reporting Period 01/01/2005 to 12/31/2005

County		2005 Data	7)	Three Year Data (2003-2005) Overweight (7)			
Clinic	Total	Overweight (Confidence	Total	Percent	Confidence	
Cillic	Records	Percent	Interval (±)	Records	Percent	Interval (±)	
Kingsbury	27	*	*	74	*	*	
De Smet	27	*	*	7 4 74	*	*	
Lake	75	*	*	249	14.1%	3.9%	
Madison	75 75	*	*	2 49 249	14.1%	3.9%	
Lawrence	185	11.9%	4.2%	534	9.4%	2.2%	
Deadwood	44	*	*	156	10.3%	4.2%	
Spearfish	141	9.2%	4.2%	378	9.0%	2.5%	
Lincoln	62	*	*	171	15.8%	5.0%	
Canton	62	*	*	171	15.8%	5.0%	
Lyman	127	11.8%	5.0%	380	11.6%	2.9%	
Kennebec	24	*	*	73	*	*	
Lower Brule	103	11.7%	5.5%	307	11.4%	3.2%	
Marshall	31	*	*	92	*	*	
Britton	31	*	*	92	*	*	
McCook	59	*	*	163	11.7%	4.4%	
Salem	59	*	*	163	11.7%	4.4%	
McPherson	21	*	*	62	*	*	
Eureka	11	*	*	32	*	*	
Leola	10	*	*	30	*	*	
Meade	175	10.3%	4.0%	554	12.1%	2.4%	
Faith	26	*	*	80	*	*	
Sturgis	149	10.7%	4.4%	474	11.6%	2.6%	
Miner	12	*	*	60	*	*	
Howard	12	*	*	60	*	*	
Minnehaha	1,238	16.5%	1.9%	3,955	15.9%	1.0%	
Sioux Falls	1,238	16.5%	1.9%	3,955	15.9%	1.0%	
Moody	70	*	*	200	21.5%	5.4%	
Flandreau	70	*	*	200	21.5%	5.4%	
Pennington	1,663	11.7%	1.4%	4,866	12.0%	0.8%	
Ellsworth	163	3.1%	2.3%	570	6.1%	1.7%	
Hill City	43	*	*	111	10.8%	5.1%	
Rapid City	1,439	12.6%	1.5%	4,129	13.0%	0.9%	
Wall	18			56			
Perkins	49	*	*	150	7.3%	3.6%	
Bison	20	*	*	52	*	*	
Lemmon	29	*	*	98	*	*	

⁽⁷⁾ Overweight: greater than or equal to 95th percentile based on BMI-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Table 15 (Continued)

Pediatric Nutrition Surveillance System Overweight - Ages 2 to 5 Years Reporting Period 01/01/2005 to 12/31/2005

County		2005 Data Overweight (7)	Three Year Data (2003-2005) Overweight (7)		
Clinic	Total Records	Percent	Confidence Interval (±)	Total Records	Percent	Confidence Interval (±)
Potter	29	*	*	86	*	*
Hoven	29	*	*	86	*	*
Roberts	222	20.3%	5.0%	618	19.9%	3.0%
Sisseton	222	20.3%	5.0%	618	19.9%	3.0%
Sanborn	26	*	*	62	*	*
Woonsocket	26	*	*	62	*	*
Shannon	564	14.2%	2.6%	1,680	13.7%	1.5%
Kyle	159	27.0%	6.8%	461	28.0%	4.1%
Manderson	38	*	*	110	4.5%	3.3%
Pine Ridge	301	10.0%	3.0%	932	9.1%	1.6%
Porcupine	66	*	*	177	6.2%	3.1%
Spink	74	*	*	184	12.0%	4.2%
Redfield	74	*	*	184	12.0%	4.2%
Stanley	69	*	*	185	13.0%	4.4%
Ft. Pierre	69	*	*	185	13.0%	4.4%
Sully	7	*	*	20	*	*
Onida	7	*	*	20	*	*
Tripp	72	*	*	251	12.4%	3.7%
Winner	72	*	*	251	12.4%	3.7%
Turner	54	*	*	149	9.4%	4.1%
Parker	21	*	*	56	*	*
Viborg	33	*	*	93	*	*
Union	46	*	*	165	18.8%	5.6%
Elk Point	46	*	*	165	18.8%	5.6%
Walworth	72	*	*	239	13.0%	3.8%
Mobridge	67	*	*	221	14.0%	4.1%
Selby	5	*	*	18	*	*
Yankton	218	15.6%	4.4%	647	18.9%	2.8%
Yankton	218	15.6%	4.4%	647	18.9%	2.8%
Ziebach	13	*	*	59	*	*
Dupree	13	*	*	59	*	*
Statewide PedNSS	8,431	13.9%	0.7%	25,459	13.8%	0.4%
National 2004		14.8%				

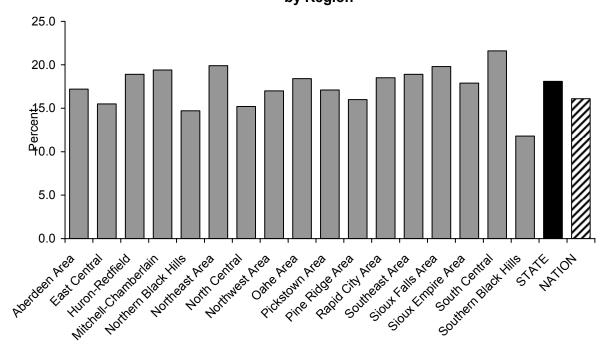
⁽⁷⁾ Overweight: greater than or equal to 95th percentile based on BMI-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Regional Overweight Data - Ages 2 to 5 Years

When the overweight data is examined regionally the statistics vary from 9.4 percent to 18.1 percent. The Southern Black Hills region reflects the lowest number and the South Central region of the state shows the highest risk of overweight for those PedNSS children ages 2 through 4 years of age. Appendix B shows the counties making up each of these Regions.

Figure 19
2005 South Dakota PedNSS
Prevalence of Overweight*
Among Children Aged 2 to <5 Years
by Region**



- * Overweight: > 95th percentile BMI-for-age, CDC. 5% of children are expected to fall above the 95th percentile
- ** Data for some regions not presented if <100 records are available for analysis after exclusions.

Table 16

Pediatric Nutrition Surveillance System
Overweight - Ages 2 to 5 Years
Reporting Period 01/01/2005 to 12/31/2005

Region**	2005 Data Overweight (7)			Three Year Data (2003-2005) Overweight (7)		
	Total	Percent	Confidence	Total	Percent	Confidence
	Records		Interval (±)	Records		Interval (±)
Aberdeen Area	418	12.2%	2.8%	1,296	11.8%	1.6%
East Central	400	12.8%	2.9%	1,137	10.9%	1.6%
Huron-Redfield	307	11.4%	3.2%	818	10.6%	1.9%
Mitchell-Chamberlain	376	13.6%	3.1%	1,105	13.7%	1.8%
Northern Black Hills	360	11.1%	2.9%	1,088	10.8%	1.6%
Northeast Area	607	17.8%	2.8%	1,856	16.6%	1.6%
North Central	145	12.4%	4.8%	468	12.4%	2.7%
Northwest Area	241	10.8%	3.5%	752	11.2%	2.0%
Oahe Area	331	17.5%	3.8%	1,000	16.5%	2.1%
Pickstown Area	434	14.7%	3.0%	1,334	13.1%	1.6%
Pine Ridge Area	788	15.0%	2.3%	2,313	15.9%	1.4%
Rapid City Area	1,663	11.7%	1.4%	4,866	12.0%	0.8%
Southeast Area	386	13.2%	3.0%	1,196	16.6%	1.9%
Sioux Falls Area	1,238	16.5%	1.9%	3,955	15.9%	1.0%
Sioux Empire Area	262	10.3%	3.3%	792	12.5%	2.1%
South Central	348	18.1%	3.8%	1,078	14.8%	1.9%
Southern Black Hills	127	9.4%	4.5%	405	11.4%	2.8%
Statewide PedNSS	8,431	13.9%	0.7%	25,459	13.8%	0.4%
National 2004		14.8%				

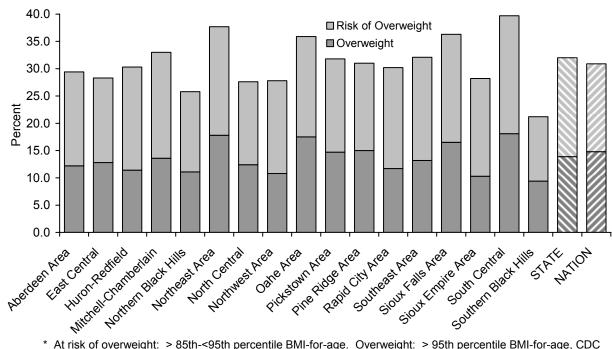
⁽⁷⁾ Overweight: greater than or equal to 95th percentile based on BMI-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.

^{**} Counties by regions and regions by county conversion tables are in Appendix A and Appendix B.

Regional Overweight and At Risk of Overweight Data - Ages 2 to 5 Years

When combined the overweight and risk of overweight data regionally reflects the same results as when examined individually. The statistics vary from 21.2 percent to 39.7 percent. The Southern Black Hills region reflects the lowest number and the South Central region of the state shows the highest overweight and risk of overweight for those PedNSS children ages 2 through 4 years of age. Appendix B shows the counties making up each of these Regions.

Figure 20
2005 South Dakota PedNSS
Prevalence of Overweight and Risk of Overweight*
Among Children Aged 2 to <5 Years
by Region**



^{*} At risk of overweight: > 85th-<95th percentile BMI-for-age. Overweight: > 95th percentile BMI-for-age, CDC Growth Charts, 2000. 5% of children are expected to fall above the 95th percentile; 15% of children are expected to fall above the 85th percentile.

^{**} Data for some regions not presented if <100 records are available for analysis after exclusions.

Pediatric Nutrition Surveillance System Overweight and Risk of Overweight - Ages 2 to 5 Years Reporting Period 01/01/2005 to 12/31/2005

Table 16

Region**	Ov	2005 Data erweight a	nd	Three Year Data (2003-2005) Overweight and			
	Risk	Risk of Overweight (7)			Risk of Overweight (7)		
	Total	Percent	Confidence	Total	Percent	Confidence	
	Records		Interval (±)	Records		Interval (±)	
Aberdeen Area	418	29.4%	4.4%	1,296	27.2%	2.4%	
East Central	400	28.3%	4.4%	1,137	26.6%	2.5%	
Huron-Redfield	307	30.3%	5.2%	818	28.9%	3.1%	
Mitchell-Chamberlain	376	33.0%	4.9%	1,105	33.7%	2.9%	
Northern Black Hills	360	25.8%	4.4%	1,088	25.6%	2.5%	
Northeast Area	607	37.7%	4.1%	1,856	35.5%	2.3%	
North Central	145	27.6%	7.2%	468	28.6%	4.1%	
Northwest Area	241	27.8%	5.6%	752	27.8%	3.2%	
Oahe Area	331	35.9%	5.4%	1,000	37.6%	3.2%	
Pickstown Area	434	31.8%	4.5%	1,334	32.3%	2.6%	
Pine Ridge Area	788	31.0%	3.3%	2,313	32.5%	1.9%	
Rapid City Area	1,663	30.2%	2.2%	4,866	29.8%	1.3%	
Southeast Area	386	32.1%	4.7%	1,196	34.3%	2.8%	
Sioux Falls Area	1,238	36.3%	2.8%	3,955	35.3%	1.6%	
Sioux Empire Area	262	28.2%	5.4%	792	30.2%	3.2%	
South Central	348	39.7%	5.6%	1,078	34.8%	3.0%	
Southern Black Hills	127	21.2%	6.7%	405	26.5%	4.2%	
Statewide PedNSS	8,431	32.0%	1.0%	25,459	31.8%	0.6%	
National 2004		30.9%					

Shaded rows indicate the three-year data are significantly higher than the state three-year data at the 0.05 level.

(7) Overweight: and risk of overweight greater than or equal to 85th percentile based on BMI-for-age for children 2 years of age and older; excludes records with biologically implausible values for height, age, and weight.

** Counties by regions and regions by county conversion tables are in Appendix A and Appendix B.

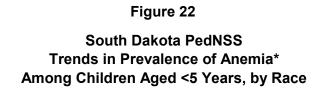
Anemia

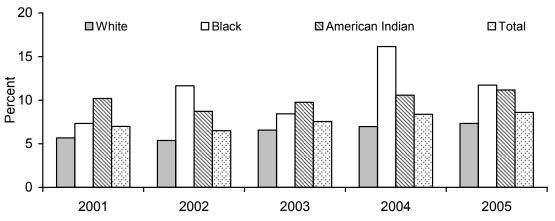
Anemia is defined as having low hemoglobin (Hb) concentrations or hematocrit (Hct) values when measuring a healthy reference population of the same age. The PedNSS uses a hemoglobin and/or hematocrit value below the 5th percentile of the third National Health and Nutrition Examination Survey (NHANES III) reference population.

The percent prevalence in South Dakota's PedNSS population with anemia was 8.6 percent in 2005, up from 8.4 percent in 2004. The percent of the South Dakota PedNSS population with anemia was 8.2 percent over the three-year period 2003-2005. The United States PedNSS population had an anemia rate of 13.7 percent in calendar year 2004.

Figure 21 South Dakota PedNSS Prevalence of Anemia* Among Children Aged <5 Years, by Race 20 ■ South Dakota (2005) ■ Nation (2004) 15 10 5 0 White Total **Black** Asian American Indian

* Hb or Hct < 5th percentile, CDC MMWR vol. 47 (No. RR-3), 1998.





^{*} Hb or Hct < 5th percentile, CDC MMWR vol. 47 (No. RR-3), 1998.

The percent prevalence of children with anemia by race in South Dakota's 2005 PedNSS population was:

- 7.3 percent for whites
- 11.7 percent for blacks
- 11.2 percent for American Indians or Alaskan Natives
- 9.4 percent for Asian or Pacific Islanders.

The age breakdown for this population was:

- less than 12 months, 11.5 percent
- 12 through 17 months, 9.8 percent
- 18 through 23 months, 8.7 percent
- 24 through 35 months, 9.6 percent
- 36 through 59 months, 5.2 percent.

When converted to whole years the age breakdown for this population was:

- less than one year, 11.5 percent
- 1 year, 9.2 percent
- 2 years, 9.6 percent
- 3 years, 6.3 percent
- 4 years of age, 3.7 percent.

Table 17 **Pediatric Nutrition Surveillance System** Anemia Reporting Period 01/01/2005 to 12/31/2005

County		2005 Data Anemia (8)	_	Three Year Data (2003-2005) Anemia (8)			
Clinic	Total Records	Percent	Confidence Interval (±)	Total Records	Percent	Confidence Interval (±)	
Aurora	49	*	*	155	8.4%	3.8%	
Plankinton	49	*	*	155	8.4%	3.8%	
Beadle	364	6.0%	2.1%	1,044	4.1%	1.0%	
Huron	364	6.0%	2.1%	1,044	4.1%	1.0%	
Bennett	181	24.9%	6.1%	511	22.5%	3.5%	
Martin	181	24.9%	6.1%	511	22.5%	3.5%	
Bon Homme	120	10.0%	4.7%	369	7.9%	2.4%	
Tyndall	120	10.0%	4.7%	369	7.9%	2.4%	
Brookings	364	4.7%	1.9%	1,031	4.9%	1.1%	
Brookings	364	4.7%	1.9%	1,031	4.9%	1.1%	
Brown	519	9.8%	2.3%	1,648	8.1%	1.2%	
Aberdeen	519	9.8%	2.3%	1,648	8.1%	1.2%	
Brule	96	*	*	277	5.1%	2.2%	
Chamberlain	79	*	*	229	5.2%	2.5%	
Kimball	17	*	*	48	*	*	
Buffalo	191	7.9%	3.3%	538	5.6%	1.7%	
Ft. Thompson	191	7.9%	3.3%	538	5.6%	1.7%	
Butte	225	5.8%	2.6%	681	6.5%	1.6%	
Belle Fourche	198	6.6%	3.0%	579	6.0%	1.7%	
Newell	27			102	8.8%	4.8%	
Charles Mix	392	16.8%	3.4%	1,117	12.6%	1.7%	
Lake Andes	113	18.6%	6.7%	321	12.5%	3.2%	
Platte	47			127	16.5%	5.9%	
Wagner	232	14.7%	4.1%	669	12.0%	2.2%	
Clark	66	*	*	183	4.9%	2.7%	
Clark	66			183	4.9%	2.7%	
Clay	203 203	5.9%	2.8%	623 623	5.8%	1.6%	
Vermillion		5.9%	2.8%		5.8%	1.6% 1.0%	
Codington Watertown	455 455	2.4%	1.2%	1,412	4.8%	1.0%	
Corson		2.4%	1.2%	1,412 26	4.8%	1.0%	
McLaughlin	6 6	*	*	2 6 26	*	*	
Custer	86	*	*	238	7.1%	2.8%	
<u> </u>	86	*	*	238	7.1%	2.8%	
Custer	338	10.1%	2.8%		8.9%	1.5%	
Davison Mitchell	338	10.1%	2.8%	1,028 1,028	8.9%	1.5%	
Day	126	4.8%	3.2%	384	3.1%	1.5%	
Webster	126	4. 6 % 4.8%	3.2%	3 84 384	3.1%	1.5%	
Deuel	32	* *	3.Z /0 *	114	7.9%	4.3%	
Clear Lake	32	*	*	114	7.9%	4.3%	
Olcai Lane	JZ			114	1.3/0	+. 3 /0	

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Shaded rows indicate the three-year data are significantly higher than the state three-year data at the 0.05 level. (8) Anemia: Hemoglobin (Hb) concentrations or hematocrit (Hct) values less than 5th percentile of NHANES III survey; children 6 months to 5 years of age included in the analysis.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Table 17 (Continued)

Pediatric Nutrition Surveillance System Anemia Reporting Period 01/01/2005 to 12/31/2005

County		2005 Data Anemia (8)		Three Y	ear Data (20 Anemia (8)	03-2005)
Clinic	Total Records	Percent	Confidence Interval (±)	Total Records	Percent	Confidence Interval (±)
Dewey	42	*	*	130	1.5%	1.8%
Isabel	14	*	*	37	*	*
Timber Lake	28	*	*	93	*	*
Douglas	36	*	*	127	15.0%	5.7%
Armour	36	*	*	127	15.0%	5.7%
Edmunds	42	*	*	126	3.2%	2.6%
Bowdle	27	*	*	88	*	*
Ipswich	15	*	*	38	*	*
Fall River	136	6.6%	3.6%	429	12.1%	2.8%
Hot Springs	136	6.6%	3.6%	429	12.1%	2.8%
Faulk	20	*	*	85	*	*
Faulkton	20	*	*	85	*	*
Grant	116	15.5%	6.0%	370	9.5%	2.6%
Milbank	116	15.5%	6.0%	370	9.5%	2.6%
Gregory	78	*	*	228	1.3%	1.2%
Bonesteel	26	*	*	57	*	*
Burke	52	*	*	171	0.6%	1.0%
Haakon	32	*	*	102	2.9%	2.8%
Philip	32	*	*	102	2.9%	2.8%
Hamlin	128	12.5%	5.1%	373	14.5%	3.2%
Hayti	128	12.5%	5.1%	373	14.5%	3.2%
Hand	43	*	*	142	6.3%	3.5%
Miller	43	*	*	142	6.3%	3.5%
Hanson	57	*	*	189	4.2%	2.5%
Alexandria	57	*	*	189	4.2%	2.5%
Harding	9	*	*	28	*	*
Buffalo	9	*	*	28	*	*
Hughes	264	3.8%	2.0%	884	2.6%	0.9%
Pierre	264	3.8%	2.0%	884	2.6%	0.9%
Hutchinson	93	*	*	273	6.2%	2.5%
Freeman	56	*	*	148	8.1%	3.8%
Parkston	37	*	*	125	4.0%	2.9%
Hyde	27	*	*	88	*	*
Highmore	27	*	*	88	*	*
Jackson	171	20.5%	5.7%	547	20.3%	3.2%
Kadoka	35	*	*	119	8.4%	4.4%
Wanblee	136	25.0%	7.1%	428	23.6%	3.9%
Jerauld	33	*	*	94	*	*
Wessington Springs	33	*	*	94	*	*
Jones	29	*	*	92	*	*
Murdo	29	*	*	92	*	*

⁽⁸⁾ Anemia: Hemoglobin (Hb) concentrations or hematocrit (Hct) values less than 5th percentile of NHANES III survey; children 6 months to 5 years of age included in the analysis.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Table 17 (Continued)

Pediatric Nutrition Surveillance System Anemia Reporting Period 01/01/2005 to 12/31/2005

County	2005 Data Anemia (8)			Three Year Data (2003-2005) Anemia (8)			
Clinic	Total	Percent	Confidence	Total	Percent	Confidence	
	Records		Interval (±)	Records		Interval (±)	
Kingsbury	35	*	*	109	1.8%	2.1%	
De Smet	35	*	*	109	1.8%	2.1%	
Lake	127	3.9%	2.9%	417	5.8%	1.9%	
Madison	127	3.9%	2.9%	417	5.8%	1.9%	
Lawrence	335	2.1%	1.3%	960	2.9%	0.9%	
Deadwood	88	*	*	295	3.1%	1.7%	
Spearfish	247	2.0%	1.5%	665	2.9%	1.1%	
Lincoln	106	4.7%	3.5%	277	4.0%	2.0%	
Canton	106	4.7%	3.5%	277	4.0%	2.0%	
Lyman	185	2.7%	2.0%	565	1.9%	1.0%	
Kennebec	31	*	*	90	*	*	
Lower Brule	154	2.6%	2.1%	475	2.1%	1.1%	
Marshall	49	*	*	131	3.1%	2.5%	
Britton	49	*	*	131	3.1%	2.5%	
McCook	97	*	*	269	3.3%	1.8%	
Salem	97	*	*	269	3.3%	1.8%	
McPherson	29	*	*	91	*	*	
Eureka	13	*	*	47	*	*	
Leola	16	*	*	44	*	*	
Meade	283	7.8%	2.7%	879	8.4%	1.6%	
Faith	35	*	*	115	2.6%	2.5%	
Sturgis	248	8.9%	3.1%	764	9.3%	1.8%	
Miner	22	*	*	92	*	*	
Howard	22	*	*	92	*	*	
Minnehaha	2,369	8.7%	1.0%	7,149	8.6%	0.6%	
Sioux Falls	2,369	8.7%	1.0%	7,149	8.6%	0.6%	
Moody	112	12.5%	5.5%	338	14.2%	3.4%	
Flandreau	112	12.5%	5.5%	338	14.2%	3.4%	
Pennington	2,845	7.7%	0.9%	8,355	7.8%	0.5%	
Ellsworth	295	8.1%	2.7%	990	10.3%	1.7%	
Hill City	76	*	*	188	5.3%	2.8%	
Rapid City	2,458	7.7%	0.9%	7,111	7.6%	0.5%	
Wall	16	*	*	66	*	*	
Perkins	72	*	*	224	6.7%	2.8%	
Bison	27	*	*	73	*	*	
Lemmon	45	*	*	151	3.3%	2.4%	

Shaded rows indicate the three-year data are significantly higher than the state three-year data at the 0.05 level. (8) Anemia: Hemoglobin (Hb) concentrations or hematocrit (Hct) values less than 5th percentile of NHANES III survey;

children 6 months to 5 years of age included in the analysis.

Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

Table 17 (Continued)

Pediatric Nutrition Surveillance System Anemia Reporting Period 01/01/2005 to 12/31/2005

County		2005 Data Anemia (8)			Three Year Data (2003-2005) Anemia (8)		
Clinic	Total				Total Percent Confidence		
Cillic	Records	Percent	Interval (±)	Records	Percent	Interval (±)	
Potter	41	*	*	124	4.0%	3.0%	
Hoven	41	*	*	124	4.0%	3.0%	
Roberts	369	20.3%	3.9%	1,024	15.1%	2.0%	
Sisseton	369	20.3%	3.9%	1,024	15.1%	2.0%	
Sanborn	43	*	*	109	5.5%	3.7%	
Woonsocket	43	*	*	109	5.5%	3.7%	
Shannon	963	10.2%	1.7%	2,869	10.9%	1.0%	
Kyle	261	3.4%	1.9%	741	3.4%	1.1%	
Manderson	60	*	*	188	18.6%	5.2%	
Pine Ridge	546	9.9%	2.2%	1,655	11.4%	1.4%	
Porcupine	96	*	*	285	22.5%	4.6%	
Spink	119	10.1%	4.8%	320	8.1%	2.6%	
Redfield	119	10.1%	4.8%	320	8.1%	2.6%	
Stanley	102	13.7%	6.0%	282	9.9%	3.1%	
Ft. Pierre	102	13.7%	6.0%	282	9.9%	3.1%	
Sully	12	*	*	32	*	*	
Onida	12	*	*	32	*	*	
Tripp	129	18.9%	6.3%	405	16.8%	3.4%	
Winner	129	18.9%	6.3%	405	16.8%	3.4%	
Turner	91	*	*	248	9.7%	3.3%	
Parker	40	*	*	102	14.7%	6.2%	
Viborg	51	*	*	146	6.2%	3.4%	
Union	70	*	*	259	5.0%	2.3%	
Elk Point	70	*	*	259	5.0%	2.3%	
Walworth	105	6.7%	4.2%	361	3.3%	1.6%	
Mobridge	94	*	*	321	3.1%	1.6%	
Selby	11	*	*	40	*	*	
Yankton	403	8.9%	2.4%	1,147	9.9%	1.5%	
Yankton	403	8.9%	2.4%	1,147	9.9%	1.5%	
Ziebach	20	*	*	83	*	*	
Dupree	20	*	*	83	*	*	
Statewide PedNSS	14,302	8.6%	0.4%	42,805	8.2%	0.2%	
National 2004		13.7%					

Shaded rows indicate the three-year data are significantly higher than the state three-year data at the 0.05 level. (8) Anemia: Hemoglobin (Hb) concentrations or hematocrit (Hct) values less than 5th percentile of NHANES III survey; children 6 months to 5 years of age included in the analysis.

* Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of

reliability or precision.

Regional Anemia Data

When the anemia data is examined regionally the statistics vary from 4.7 percent to 13.5 percent. The Northern Black Hills region reflects the lowest number and the Pine Ridge Area region of the state shows the highest rate of anemia among the PedNSS population less than 5 years of age. Appendix B shows the counties making up each of these Regions.

Figure 23 2005 South Dakota PedNSS Prevalence of Anemia* Among Children Aged <5 Years by Region** 15 10 Percent 5 0 Southern Black Lills erreitetrustreit Black Hills got Joint Redfield Michell Chamberlain Wortheast Area Nothinest Area Sicketown Ares Pine Ridge Ales Ruye rich kles. Souther the s Sout Englis Area Essi Central World Central urver Falls Area South Central Oake Hea

- * Hb or Hct < 5th percentile, CDC MMWR vol. 47 (No. RR-3), 1998.
- ** Data for some regions not presented if <100 records are available for analysis after exclusions.

Table 18 **Pediatric Nutrition Surveillance System** Anemia Reporting Period 01/01/2005 to 12/31/2005

Region**		2005 Data Anemia (8)		Three Year Data (2003-2005) Anemia (8)		
	Total	Percent	Confidence	Total	Percent	Confidence
	Records		Interval (±)	Records	l Groom	Interval (±)
Aberdeen Area	694	8.4%	1.8%	2,163	6.9%	0.9%
East Central	639	7.5%	1.8%	1,851	8.4%	1.1%
Huron-Redfield	483	7.0%	2.0%	1,364	5.1%	1.0%
Mitchell-Chamberlain	616	8.0%	1.9%	1,852	7.6%	1.1%
Northern Black Hills	618	4.7%	1.4%	1,839	5.5%	0.9%
Northeast Area	1,038	10.7%	1.7%	3,103	8.9%	0.9%
North Central	202	7.9%	3.3%	689	5.2%	1.4%
Northwest Area	368	5.2%	2.0%	1,146	5.5%	1.1%
Oahe Area	489	6.7%	1.9%	1,552	4.5%	0.9%
Pickstown Area	719	12.5%	2.2%	2,114	9.9%	1.1%
Pine Ridge Area	1,315	13.5%	1.7%	3,927	13.7%	1.0%
Rapid City Area	2,845	7.7%	0.9%	8,355	7.8%	0.5%
Southeast Area	676	7.4%	1.7%	2,029	8.0%	1.0%
Sioux Falls Area	2,369	8.7%	1.0%	7,149	8.6%	0.6%
Sioux Empire Area	443	6.3%	2.0%	1,303	5.8%	1.1%
South Central	566	8.3%	2.0%	1,702	6.9%	1.0%
Southern Black Hills	222	6.8%	2.9%	667	10.3%	2.0%
Statewide PedNSS	14,302	8.6%	0.4%	42,805	8.2%	0.2%
National 2004		13.7%				

⁽⁸⁾ Anemia: Hemoglobin (Hb) concentrations or hematocrit (Hct) values less than 5th percentile of NHANES III survey; children 6 months to 5 years of age included in the analysis.

** Counties by regions and regions by county conversion tables are in Appendix A and Appendix B.

Breastfeeding

Initiation (Ever Breastfed)

Healthy People 2010 Goal: Is to increase the proportion of mothers who breastfeed their babies in the early postpartum period to at least 75 percent, 50 percent at 6 months and at least 25 percent at one year.

According to the 2005 PedNSS population in SD, 57.6 percent of children 2 years of age and under were ever breastfed. This is an increase from the 2004 rate of 56.8 percent. The three-year rate for 2003 through 2005 PedNSS population was 49.0 percent. The United States rate for the PedNSS population that had ever breastfed was 56.1 percent in calendar year 2004.

Figure 24 **South Dakota PedNSS** Percentage of Infants Ever Breastfed* by Race 100 ■ South Dakota (2005) 90 Year ■ Nation (2004) 80 2010 70 target** 60 50 40 30 20 10 White Black American Asian Total Indian

* Among infants born during the reporting period.

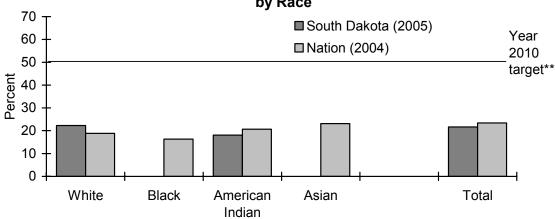
The South Dakota PedNSS populations by race in 2005 who ever breastfed was:

- 59.6 percent for whites
- 64.9 percent for blacks
- 51.0 percent for American Indian.

^{**} Increase the proportion of mothers who breastfeed their babies in the early postpartum period to 75%.

Six Months or More

Figure 25
South Dakota PedNSS
Percentage of Infants Breastfed at Least 6 Months*
by Race



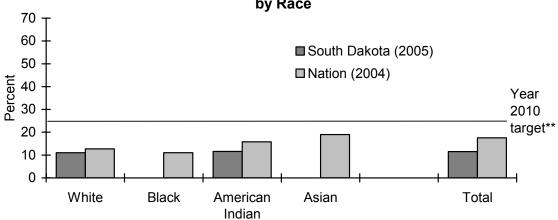
- * Among infants who turned 6 months of age during the reporting period.
- ** Year 2010 target: increase the proportion of mothers who breastfeed their babies at 6 months to 50%.

Figure 26

South Dakota PedNSS

Percentage of Infants Breastfed at Least 12 Months*

by Race



- * Among infants who turned 12 months of age during the reporting period.
- ** Increase the proportion of mothers who breastfeed their babies at 1 year to 25%.

The percent of infants in the South Dakota PedNSS population that were breastfed at least 6 months in 2005 was 21.7 percent. This is an increase from the 2004 rate of 19.4 percent. The three-year rate for the 2003 through 2005 PedNSS population was 13.2. In the United States PedNSS population, the percent of infants that were breastfed at least 6 months was 23.4 percent in calendar year 2004.

The percent of South Dakota PedNSS infant's breastfed at least 6 months by race or ethnicity in 2005 was:

- 22.3 percent for whites
- 18.1 percent for American Indians and Alaskan Natives.

The percent of infants in the South Dakota PedNSS population that were breastfed at least 12 months in 2005 was 11.5 percent. This is a decrease from the 2004 rate of 12.0 percent. The three-year rate for the 2003 through 2005 PedNSS population was 5.2. In the United States PedNSS population the percent of infants that were breastfed at least 12 months was 17.6 percent in calendar year 2004.

The percent of South Dakota PedNSS infant's breastfed at least 12 months by race or ethnicity in 2005 was:

- 11.0 percent for whites
- 11.6 percent for American Indians and Alaskan Natives.

Pediatric Nutrition Surveillance System
Ever Breastfed
Reporting Period 01/01/2005 to 12/31/2005

Table 19

County	Fv	2005 Data er Breastfed	(9)		ear Data (20 er Breastfed	
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
omine .	Records	1 ercent	Interval (±)	Records	1 ercent	Interval (±)
Aurora	10	*	*	41	*	*
Plankinton	10	*	*	41	*	*
Beadle	111	64.9%	12.6%	375	58.1%	6.5%
Huron	111	64.9%	12.6%	375	58.1%	6.5%
Bennett	42	*	*	139	42.4%	9.1%
Martin	42	*	*	139	42.4%	9.1%
Bon Homme	40	*	*	112	27.7%	8.2%
Tyndall	40	*	*	112	27.7%	8.2%
Brookings	137	67.9%	11.6%	445	57.8%	5.9%
Brookings	137	67.9%	11.6%	445	57.8%	5.9%
Brown	184	54.3%	8.9%	663	44.3%	4.3%
Aberdeen	184	54.3%	8.9%	663	44.3%	4.3%
Brule	34	*	*	89	*	*
Chamberlain	28	*	*	72	*	*
Kimball	6	*	*	17	*	*
Buffalo	45	*	*	165	27.3%	6.7%
Ft. Thompson	45	*	*	165	27.3%	6.7%
Butte	79	*	*	265	35.8%	6.0%
Belle Fourche	70	*	*	231	36.8%	6.6%
Newell	9	*	*	34	*	*
Charles Mix	98	*	*	360	52.5%	6.3%
Lake Andes	25	*	*	96	*	*
Platte	19	*	*	41	*	
Wagner	54			223	53.4%	8.0%
Clark	10	*	*	44	*	*
Clark	10	*	*	44		
Clay	68	*	*	232	51.3%	7.7%
Vermillion	68			232	51.3%	7.7%
Codington	194	58.2% 58.2%	9.0%	615	47.8%	4.6%
Watertown	194 3	58.2% *	9.0%	615 9	47.8% *	4.6%
Corson		*	*		*	*
McLaughlin	3 21	*	*	9 95	*	*
Custer Custer	21	*	*	9 5 95	*	*
Davison		45.7%	9.0%	479	42.4%	4.9%
Mitchell	151 151	45.7% 45.7%	9.0%	479 479	42.4% 42.4%	4.9%
Day	37	*	9.0 /0 *	104	45.2%	10.8%
Webster	37 37	*	*	104	45.2 % 45.2%	10.8%
Deuel	12	*	*	53	**	*
Clear Lake	12	*	*	53 53	*	*
Olcai Lanc	12			JJ		

⁽⁹⁾ Percent of infants born during the reporting period that were ever breastfed.
* Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Table 19 (Continued)

Pediatric Nutrition Surveillance System Ever Breastfed Reporting Period 01/01/2005 to 12/31/2005

County	Fv	2005 Data er Breastfed	(9)		ear Data (20) er Breastfed	
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
	Records	rercent	Interval (±)	Records	1 ercent	Interval (±)
Dewey	14	*	*	52	*	*
Isabel	6	*	*	15	*	*
Timber Lake	8	*	*	37	*	*
Douglas	6	*	*	31	*	*
Armour	6	*	*	31	*	*
Edmunds	7	*	*	40	*	*
Bowdle	4	*	*	23	*	*
Ipswich	3	*	*	17	*	*
Fall River	38	*	*	161	49.7%	9.1%
Hot Springs	38	*	*	161	49.7%	9.1%
Faulk	5	*	*	19	*	*
Faulkton	5	*	*	19	*	*
Grant	44	*	*	129	50.4%	10.3%
Milbank	44	*	*	129	50.4%	10.3%
Gregory	26	*	*	84	*	*
Bonesteel	#	*	*	19	*	*
Burke	#	*	*	65	*	*
Haakon	4	*	*	22	*	*
Philip	4	*	*	22	*	*
Hamlin	27	*	*	111	63.1%	12.4%
Hayti	27	*	*	111	63.1%	12.4%
Hand	7	*	*	45	*	*
Miller	7	*	*	45	*	*
Hanson	13	*	*	57	*	*
Alexandria	13	*	*	57	*	*
Harding	3	*	*	11	*	*
Buffalo	3	*	*	11	*	
Hughes	114	51.8%	11.1%	364	39.0%	5.4%
Pierre	114	51.8%	11.1%	364	39.0%	5.4%
Hutchinson	24	*	*	75	*	*
Freeman	13	*	*	39	*	*
Parkston	11	*	*	36	*	*
Hyde	8	*	*	25	*	*
Highmore	8	^ -	· ·	25		2.00/
Jackson	46	*	*	147	36.7% *	8.2%
Kadoka	7 39	*	*	30		
Wanblee		*	*	117 35	31.6%	8.5%
Jerauld	9 9	*	*	35 35	*	*
Wessington Springs	7	*	*		*	*
Jones Murdo	7	*	*	33 33	*	*
iviuluo	/	**	"	აა	**	

 ⁽⁹⁾ Percent of infants born during the reporting period that were ever breastfed.
 * Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Table 19 (Continued)

Pediatric Nutrition Surveillance System Ever Breastfed Reporting Period 01/01/2005 to 12/31/2005

County	Ev	2005 Data er Breastfed	I (9)		ear Data (20 er Breastfed	
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
	Records		Interval (±)	Records		Interval (±)
Kingsbury	7	*	*	26	*	*
De Smet	7	*	*	26	*	*
Lake	43	*	*	182	52.7%	8.9%
Madison	43	*	*	182	52.7%	8.9%
Lawrence	132	58.3%	10.9%	418	52.6%	5.8%
Deadwood	37	*	*	121	48.8%	10.4%
Spearfish	95	*	*	297	54.2%	7.0%
Lincoln	43	*	*	121	49.6%	10.5%
Canton	43	*	*	121	49.6%	10.5%
Lyman	40	*	*	151	41.7%	8.6%
Kennebec	3	*	*	22	*	*
Lower Brule	37	*	*	129	40.3%	9.2%
Marshall	19	*	*	55	*	*
Britton	19	*	*	55	*	*
McCook	27	*	*	99	*	*
Salem	27	*	*	99	*	*
McPherson	5	*	*	22	*	*
Eureka	#	*	*	10	*	*
Leola	#	*	*	12	*	*
Meade	84	*	*	301	47.5%	6.5%
Faith	8	*	*	31	*	*
Sturgis	76	*	*	270	48.1%	6.9%
Miner	3	*	*	23	*	*
Howard	3	*	*	23	*	*
Minnehaha	1,094	58.7%	3.8%	3,766	50.9%	1.9%
Sioux Falls	1,094	58.7%	3.8%	3,766	50.9%	1.9%
Moody	42	*	*	144	43.1%	9.0%
Flandreau	42	*	*	144	43.1%	9.0%
Pennington	1,021	65.0%	4.2%	3,445	54.6%	2.1%
Ellsworth	108	77.8%	14.0%	471	65.4%	6.1%
Hill City	16	*	*	67	*	*
Rapid City	894	63.4%	4.4%	2,890	52.8%	2.2%
Wall	3	*	*	17	*	*
Perkins	13	*	*	54	*	*
Bison	5	*	*	16	*	*
Lemmon	8	*	*	38	*	*

⁽⁹⁾ Percent of infants born during the reporting period that were ever breastfed.

Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Table 19 (Continued)

Pediatric Nutrition Surveillance System Ever Breastfed Reporting Period 01/01/2005 to 12/31/2005

County	Ev	2005 Data er Breastfed	(9)		ear Data (20 er Breastfed	
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
-	Records	*	Interval (±)	Records	*	Interval (±)
Potter	8	*	*	35	*	*
Hoven	8			35		
Roberts	136	41.9%	9.1%	430	39.8%	5.0%
Sisseton	136	41.9%	9.1%	430	39.8%	5.0%
Sanborn	11	*	*	37	*	*
Woonsocket	11			37		
Shannon	343	53.6%	6.5%	1,130	47.3%	3.4%
Kyle	87	*	*	284	50.0%	6.9%
Manderson	25	*	*	77	*	*
Pine Ridge	212	51.4%	8.1%	685	47.6%	4.3%
Porcupine	19	*	*	84	*	*
Spink	27	*	*	105	44.8%	10.7%
Redfield	27	*	*	105	44.8%	10.7%
Stanley	32	*	*	90	*	*
Ft. Pierre	32	*	*	90	*	*
Sully	6	*	*	14	*	*
Onida	6	*	*	14	*	*
Tripp	47	*	*	158	27.2%	6.8%
Winner	47	*	*	158	27.2%	6.8%
Turner	25	*	*	85	*	*
Parker	12	*	*	41	*	*
Viborg	13	*	*	44	*	*
Union	37	*	*	134	44.8%	9.5%
Elk Point	37	*	*	134	44.8%	9.5%
Walworth	29	*	*	124	54.8%	10.9%
Mobridge	#	*	*	113	53.1%	11.3%
Selby	#	*	*	11	*	*
Yankton	142	42.3%	9.0%	474	40.9%	4.8%
Yankton	142	42.3%	9.0%	474	40.9%	4.8%
Ziebach	9	*	*	29	*	*
Dupree	9	*	*	29	*	*
	1 -					
Healthy People 2010		75%			75%	
Statewide PedNSS	5,103	57.6%	1.7%	17,378	49.0%	0.9%
National 2004	-,	56.1%	1 /0	,	.0.075	0.070
ITAGONAL EVOT		JU. 1 /0				

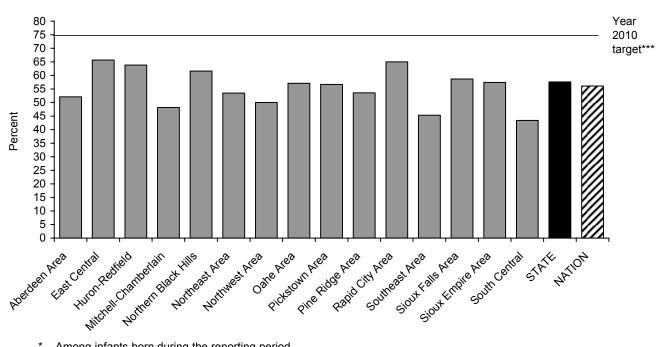
⁽⁹⁾ Percent of infants born during the reporting period that were ever breastfed.
* Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Regional Breastfeeding Data - Ever Breastfed

When the ever breastfed data is examined regionally the statistics vary from 43.4 percent to 65.7 percent. The East Central region reflects the highest number and the South Central region of the state shows the lowest rate of ever breastfeeding among the PedNSS infants born during the reporting period. Appendix B shows the counties making up each of these Regions.

Figure 27 2005 South Dakota PedNSS Percentage of Infants Ever Breastfed* by Region**



- Among infants born during the reporting period.
- Data for some regions not presented if <100 records are available for analysis after exclusions.
- Increase the proportion of mothers who breastfeed their babies in the early postpartum period to 75%.

Table 20

Pediatric Nutrition Surveillance System
Ever Breastfed
Reporting Period 01/01/2005 to 12/31/2005

	F	2005 Data	(0)	Three Year Data (2003-2005)			
County**		er Breastfed	+ `		Ever Breastfed (9)		
	Total	Percent	Confidence	Total	Percent	Confidence	
	Records		Interval (±)	Records		Interval (±)	
Aberdeen Area	240	52.1%	7.7%	822	43.8%	3.8%	
East Central	213	65.7%	9.1%	726	55.6%	4.6%	
Huron-Redfield	138	63.8%	11.2%	480	55.2%	5.6%	
Mitchell-Chamberlain	228	48.2%	7.6%	738	41.9%	3.9%	
Northern Black Hills	216	61.6%	8.8%	719	50.5%	4.4%	
Northeast Area	396	53.5%	6.0%	1,271	45.3%	3.1%	
North Central	49	*	*	214	46.3%	7.7%	
Northwest Area	118	50.0%	10.7%	411	40.4%	5.2%	
Oahe Area	175	57.1%	9.4%	573	44.0%	4.6%	
Pickstown Area	194	56.7%	8.9%	662	46.7%	4.4%	
Pine Ridge Area	431	53.6%	5.8%	1,416	45.8%	3.0%	
Rapid City Area	1,021	65.0%	4.2%	3,445	54.6%	2.1%	
Southeast Area	247	45.3%	7.0%	840	44.4%	3.8%	
Sioux Falls Area	1,094	58.7%	3.8%	3,766	50.9%	1.9%	
Sioux Empire Area	141	57.4%	10.5%	510	52.4%	5.3%	
South Central	143	43.4%	9.1%	529	35.2%	4.2%	
Southern Black Hills	59	*	*	256	56.3%	7.7%	
Healthy People 2010		75.0%			75.0%		
Statewide PedNSS	5,103	57.6%	1.7%	17,378	49.0%	0.9%	
National 2004	·	56.1%					

Shaded rows indicate the three-year data are significantly lower than the state three-year data at the 0.05 level.

(9) Percent of infants born during the reporting period that were ever breastfed.

* Data from regions with loss than 100 records are required.

^{*} Data from regions with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

^{**} Counties by regions and regions by county conversion tables are in Appendix A and Appendix B.

Pediatric Nutrition Surveillance System
Breastfed at 6 Months of Age
Reporting Period 01/01/2005 to 12/31/2005

Table 21

		2005 Data		Three \	rear Data (20	003-2005)
County	Breastfed at Least 6 Months(10)				d at Least 6 I	
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
	Records		Interval (±)	Records		Interval (±)
Aurora	12	*	*	41	*	*
Plankinton	12	*	*	41	*	*
Beadle	67	*	*	299	18.4%	4.1%
Huron	67	*	*	299	18.4%	4.1%
Bennett	20	*	*	122	17.2%	6.2%
Martin	20	*	*	122	17.2%	6.2%
Bon Homme	25	*	*	93	*	*
Tyndall	25	*	*	93	*	*
Brookings	76	*	*	326	17.5%	3.8%
Brookings	76	*	*	326	17.5%	3.8%
Brown	110	20.0%	7.0%	521	12.9%	2.6%
Aberdeen	110	20.0%	7.0%	521	12.9%	2.6%
Brule	22	*	*	77	*	*
Chamberlain	17	*	*	60	*	*
Kimball	5	*	*	17	*	*
Buffalo	30	*	*	148	5.4%	3.1%
Ft. Thompson	30	*	*	148	5.4%	3.1%
Butte	49	*	*	213	15.5%	4.4%
Belle Fourche	43	*	*	182	15.9%	4.9%
Newell	6	*	*	31	*	*
Charles Mix	72	*	*	292	10.6%	3.1%
Lake Andes	18	*	*	74	*	*
Platte	11	*	*	32	*	*
Wagner	43	*	*	186	12.9%	4.3%
Clark	13	*	*	47	*	*
Clark	13	*	*	47	*	*
Clay	51	*	*	188	13.8%	4.5%
Vermillion	51	*	*	188	13.8%	4.5%
Codington	112	14.3%	5.9%	446	10.8%	2.6%
Watertown	112	14.3%	5.9%	446	10.8%	2.6%
Corson	#	*	*	4	*	*
McLaughlin	#	*	*	4	*	*
Custer	15	*	*	84	*	*
Custer	15	*	*	84	*	*
Davison	74	*	*	336	7.1%	2.4%
Mitchell	74	*	*	336	7.1%	2.4%
Day	29	*	*	95	*	*
Webster	29	*	*	95	*	*
Deuel	8	*	*	40	*	*
Clear Lake	8	*	*	40	*	*

⁽¹⁰⁾ Percent of infants who turned 6 months of age during the reporting period by/on their date of visit and were breastfed at least 6 months.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Table 21 (Continued)

Pediatric Nutrition Surveillance System Breastfed at 6 Months of Age Reporting Period 01/01/2005 to 12/31/2005

		2005 Data		Three Year Data (2003-2005)			
County	Breastfed	at Least 6 N			at Least 6 M		
Clinic	Total	Percent	Confidence	Total	Percent	Confidence	
	Records		Interval (±)	Records		Interval (±)	
Dewey	4	*	*	40	*	*	
Isabel	4	*	*	14	*	*	
Timber Lake	0	*	*	26	*	*	
Douglas	6	*	*	29	*	*	
Armour	6	*	*	29	*	*	
Edmunds	14	*	*	40	*	*	
Bowdle	#	*	*	25	*	*	
Ipswich	#	*	*	15	*	*	
Fall River	20	*	*	134	11.2%	4.8%	
Hot Springs	20	*	*	134	11.2%	4.8%	
Faulk	4	*	*	18	*	*	
Faulkton	4	*	*	18	*	*	
Grant	20	*	*	104	15.4%	6.3%	
Milbank	20	*	*	104	15.4%	6.3%	
Gregory	16	*	*	63	*	*	
Bonesteel	6	*	*	15	*	*	
Burke	10	*	*	48	*	*	
Haakon	5	*	*	24	*	*	
Philip	5	*	*	24	*	*	
Hamlin	26	*	*	106	30.2%	8.8%	
Hayti	26	*	*	106	30.2%	8.8%	
Hand	10	*	*	33	*	*	
Miller	10	*	*	33	*	*	
Hanson	17	*	*	53	*	*	
Alexandria	17	*	*	53	*	*	
Harding	#	*	*	13	*	*	
Buffalo	#	*	*	13	*	*	
Hughes	56	*	*	278	9.0%	3.0%	
Pierre	56	*	*	278	9.0%	3.0%	
Hutchinson	14	*	*	77	*	*	
Freeman	7	*	*	47	*	*	
Parkston	7	*	*	30	*	*	
Hyde	4	*	*	21	*	*	
Highmore	4	*	*	21	*	*	
Jackson	22	*	*	118	11.9%	5.2%	
Kadoka	3	*	*	26	*	*	
Wanblee	19	*	*	92	*	*	
Jerauld	4	*	*	28	*	*	
Wessington Springs	4	*	*	28	*	*	
Jones	6	*	*	29	*	*	
Murdo	6	*	*	29	*	*	

⁽¹⁰⁾ Percent of infants who turned 6 months of age during the reporting period by/on their date of visit and were breastfed at least 6 months.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Table 21 (Continued)

Pediatric Nutrition Surveillance System Breastfed at 6 Months of Age Reporting Period 01/01/2005 to 12/31/2005

County	Broastfod	2005 Data at Least 6 N	Ionths(10)		ear Data (20 at Least 6 N	
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
Cillic	Records	Fercent	Interval (±)	Records	reiceilt	Interval (±)
Kingsbury	7	*	*	18	*	*
De Smet	7	*	*	18	*	*
Lake	36	*	*	142	12.7%	4.9%
Madison	36	*	*	142	12.7%	4.9%
Lawrence	81	*	*	332	20.5%	4.1%
Deadwood	23	*	*	98	*	*
Spearfish	58	*	*	234	23.5%	5.2%
Lincoln	23	*	*	87	*	*
Canton	23	*	*	87	*	*
Lyman	33	*	*	142	6.3%	3.5%
Kennebec	7	*	*	25	*	*
Lower Brule	26	*	*	117	6.0%	3.7%
Marshall	9	*	*	39	*	*
Britton	9	*	*	39	*	*
McCook	18	*	*	81	*	*
Salem	18	*	*	81	*	*
McPherson	6	*	*	30	*	*
Eureka	#	*	*	17	*	*
Leola	#	*	*	13	*	*
Meade	52	*	*	237	6.8%	2.8%
Faith	4	*	*	23	*	*
Sturgis	48	*	*	214	7.5%	3.1%
Miner	10	*	*	25	*	*
Howard	10	*	*	25	*	*
Minnehaha	620	20.0%	3.0%	2,694	12.6%	1.1%
Sioux Falls	620	20.0%	3.0%	2,694	12.6%	1.1%
Moody	27	*	*	108	16.7%	6.5%
Flandreau	27	*	*	108	16.7%	6.5%
Pennington	587	24.9%	3.4%	2,684	14.2%	1.2%
Ellsworth	55	*	*	345	18.3%	3.8%
Hill City	15	*	*	55	*	*
Rapid City	513	23.0%	3.5%	2,268	13.6%	1.3%
Wall	4	*	*	16	*	*
Perkins	11	*	*	57	*	*
Bison	3	*	*	20	*	*
Lemmon	8	*	*	37	*	*

⁽¹⁰⁾ Percent of infants who turned 6 months of age during the reporting period by/on their date of visit and were breastfed at least 6 months.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Table 21 (Continued)

Pediatric Nutrition Surveillance System Breastfed at 6 Months of Age Reporting Period 01/01/2005 to 12/31/2005

		2005 Data		Three Year Data (2003-2005)		
County	Breastfed	at Least 6 N	fonths(10)	Breastfed	at Least 6 N	onths(10)
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
	Records		Interval (±)	Records		Interval (±)
Potter	6	*	*	34	*	*
Hoven	6	*	*	34	*	*
Roberts	77	*	*	333	10.2%	2.9%
Sisseton	77	*	*	333	10.2%	2.9%
Sanborn	7	*	*	27	*	*
Woonsocket	7	*	*	27	*	*
Shannon	161	21.1%	6.0%	840	14.8%	2.2%
Kyle	57	*	*	237	15.2%	4.2%
Manderson	8	*	*	55	*	*
Pine Ridge	85	*	*	475	14.9%	2.9%
Porcupine	11	*	*	73	*	*
Spink	27	*	*	90	*	*
Redfield	27	*	*	90	*	*
Stanley	13	*	*	74	*	*
Ft. Pierre	13	*	*	74	*	*
Sully	#	*	*	10	*	*
Onida	#	*	*	10	*	*
Tripp	41	*	*	126	6.3%	3.7%
Winner	41	*	*	126	6.3%	3.7%
Turner	11	*	*	66	*	*
Parker	6	*	*	35	*	*
Viborg	5	*	*	31	*	*
Union	18	*	*	105	15.2%	6.3%
Elk Point	18	*	*	105	15.2%	6.3%
Walworth	11	*	*	89	*	*
Mobridge	11	*	*	79	*	*
Selby	0	*	*	10	*	*
Yankton	101	12.9%	5.9%	381	10.5%	2.7%
Yankton	101	12.9%	5.9%	381	10.5%	2.7%
Ziebach	4	*	*	24	*	*
Dupree	4	*	*	24	*	*
Healthy People 2010		50%			50%	
Statewide PedNSS	3,035	21.7%	1.4%	13,455	13.2%	0.5%
National 2004	-,	23.4%	72	,		

⁽¹⁰⁾ Percent of infants who turned 6 months of age during the reporting period by/on their date of visit and were breastfed at least 6 months.

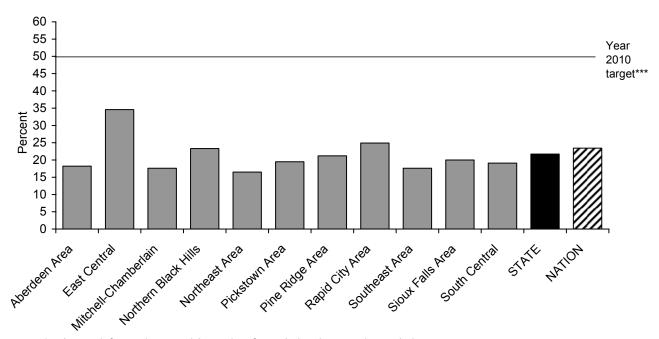
^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Regional Breastfeeding Data - Breastfed at least 6 Months

When the breastfeeding data is examined regionally the statistics for being breastfed at least 6 months vary from 34.6 percent to 16.5 percent. The East Central region reflects the highest rate and the Northeast area region of the state shows the lowest rate of breastfeeding for at least 6 months among the PedNSS infants who turned 6 months of age during the reporting period. Appendix B shows the counties making up each of these Regions.

Figure 28
2005 South Dakota PedNSS
Percentage of Infants Breastfed at Least 6 Months*
by Region**



- * Among infants who turned 6 months of age during the reporting period.
- ** Data for some regions not presented if <100 records are available for analysis after exclusions.
- *** Year 2010 target: increase the proportion of mothers who breastfeed their babies at 6 months to 50%.

Table 22

Pediatric Nutrition Surveillance System
Breastfed at 6 Months of Age
Reporting Period 01/01/2005 to 12/31/2005

		2005 Data		Three Year Data (2003-2005)			
Region**	Breastfed	at Least 6 N	fonths(10)	Breastfed at Least 6 Months(10)			
	Total	Percent	Confidence	Total	Percent	Confidence	
	Records		Interval (±)	Records		Interval (±)	
Aberdeen Area	148	18.2%	5.8%	655	11.8%	2.2%	
East Central	136	34.6%	8.3%	558	19.7%	3.1%	
Huron-Redfield	94	*	*	389	17.5%	3.5%	
Mitchell-Chamberlain	136	17.6%	5.9%	562	9.8%	2.2%	
Northern Black Hills	133	23.3%	6.9%	569	14.8%	2.7%	
Northeast Area	230	16.5%	4.4%	970	10.9%	1.7%	
North Central	36	*	*	181	12.2%	4.3%	
Northwest Area	70	*	*	347	13.8%	3.3%	
Oahe Area	91	*	*	450	12.2%	2.7%	
Pickstown Area	133	19.5%	6.3%	554	11.4%	2.4%	
Pine Ridge Area	203	21.2%	5.3%	1,080	14.7%	1.9%	
Rapid City Area	587	24.9%	3.4%	2,684	14.2%	1.2%	
Southeast Area	170	17.6%	5.3%	674	12.2%	2.2%	
Sioux Falls Area	620	20.0%	3.0%	2,694	12.6%	1.1%	
Sioux Empire Area	98	*	*	401	15.2%	3.2%	
South Central	115	19.1%	6.7%	469	8.1%	2.2%	
Southern Black Hills	35	*	*	218	12.4%	3.9%	
Healthy People 2010		50.0%			50.0%		
Statewide PedNSS	3,035	21.7%	1.4%	13,455	13.2%	0.5%	
National 2004		23.4%					

⁽¹⁰⁾ Percent of infants who turned 6 months of age during the reporting period by/on their date of visit and were breastfed at least 6 months.

^{*} Data from regions with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

^{**} Counties by regions and regions by county conversion tables are in Appendix A and Appendix B.

Table 23

Pediatric Nutrition Surveillance System Breastfed at 12 Months of Age Reporting Period 01/01/2005 to 12/31/2005

	2005 Data			Three Year Data (2003-2005)				
County	Breastfed	at Least 12			Breastfed at Least 12 Months(11)			
Clinic	Total	Percent	Confidence	Total	Percent	Confidence		
	Records		Interval (±)	Records		Interval (±)		
Aurora	10	*	*	38	*	*		
Plankinton	10	*	*	38	*	*		
Beadle	52	*	*	248	4.8%	2.3%		
Huron	52	*	*	248	4.8%	2.3%		
Bennett	23	*	*	110	7.3%	4.2%		
Martin	23	*	*	110	7.3%	4.2%		
Bon Homme	24	*	*	89	*	*		
Tyndall	24	*	*	89	*	*		
Brookings	48	*	*	251	7.2%	2.8%		
Brookings	48	*	*	251	7.2%	2.8%		
Brown	88	*	*	416	4.6%	1.7%		
Aberdeen	88	*	*	416	4.6%	1.7%		
Brule	16	*	*	74	*	*		
Chamberlain	12	*	*	58	*	*		
Kimball	4	*	*	16	*	*		
Buffalo	33	*	*	137	2.9%	2.4%		
Ft. Thompson	33	*	*	137	2.9%	2.4%		
Butte	42	*	*	179	9.5%	3.8%		
Belle Fourche	37	*	*	150	10.0%	4.2%		
Newell	5	*	*	29	*	*		
Charles Mix	63	*	*	264	3.4%	1.9%		
Lake Andes	14	*	*	63	*	*		
Platte	6	*	*	29				
Wagner	43			172	4.7%	2.7%		
Clark	10	*	*	42	*	*		
Clark	10	*		42				
Clay	32	*	*	151	4.6%	2.9%		
Vermillion	32			151	4.6%	2.9%		
Codington	88	*	*	354	5.4%	2.0%		
Watertown	88			354	5.4%	2.0%		
Corson	#	*	*	3	*	*		
McLaughlin	#	*	*	3	*	*		
Custer	16	*	*	74	*	*		
Custer	16			74				
Davison	38	*	*	252	2.4%	1.6%		
Mitchell	38	*		252	2.4%	1.6%		
Day	13	*	*	84	*	*		
Webster	13			84				
Deuel	5	*	*	29	*	*		
Clear Lake	5	*	*	29	*	*		

⁽¹¹⁾ Percent of children who turned 12 months of age during the reporting period by/on their date of visit and were breastfed at least 12 months.

Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Table 23 (Continued)

Pediatric Nutrition Surveillance System Breastfed at 12 Months of Age Reporting Period 01/01/2005 to 12/31/2005

		2005 Data			ear Data (20	
County		at Least 12 I			at Least 12 I	
Clinic	Total Records	Percent	Confidence Interval (±)	Total Records	Percent	Confidence Interval (±)
Dewey	10	*	*	37	*	*
Isabel	4	*	*	12	*	*
Timber Lake	6	*	*	25	*	*
Douglas	6	*	*	21	*	*
Armour	6	*	*	21	*	*
Edmunds	11	*	*	34	*	*
Bowdle	#	*	*	23	*	*
Ipswich	#	*	*	11	*	*
Fall River	31	*	*	121	3.3%	2.7%
Hot Springs	31	*	*	121	3.3%	2.7%
Faulk	3	*	*	22	*	*
Faulkton	3	*	*	22	*	*
Grant	14	*	*	90	*	*
Milbank	14	*	*	90	*	*
Gregory	12	*	*	52	*	*
Bonesteel	5	*	*	14	*	*
Burke	7	*	*	38	*	*
Haakon	5	*	*	22	*	*
Philip	5	*	*	22	*	*
Hamlin	17	*	*	90	*	*
Hayti	17	*	*	90	*	*
Hand	6	*	*	27	*	*
Miller	6	*	*	27	*	*
Hanson	6	*	*	48	*	*
Alexandria	6	*	*	48	*	*
Harding	3	*	*	10	*	*
Buffalo	3	*	*	10	*	*
Hughes	47	*	*	237	3.8%	2.1%
Pierre	47	*	*	237	3.8%	2.1%
Hutchinson	20	*	*	68	*	*
Freeman	14	*	*	40	*	*
Parkston	6	*	*	28	*	*
Hyde	3	*	*	19	*	*
Highmore	3	*	*	19	*	*
Jackson	17	*	*	110	6.4%	4.0%
Kadoka	7	*	*	24	*	*
Wanblee	10	*	*	86	*	*
Jerauld	5	*	*	22	*	*
Wessington Springs	5	*	*	22	*	*
Jones	8	*	*	26	*	*
Murdo	8	*	*	26	*	*

⁽¹¹⁾ Percent of children who turned 12 months of age during the reporting period by/on their date of visit and were breastfed at least 12 months.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Table 23 (Continued)

Pediatric Nutrition Surveillance System Breastfed at 12 Months of Age Reporting Period 01/01/2005 to 12/31/2005

County	Broastfod	2005 Data at Least 12 I	Months(11)		ear Data (20 at Least 12	
Clinic	Total	Percent	Confidence	Total	Percent	Confidence
Cillic	Records	reiceilt	Interval (±)	Records	reiceilt	Interval (±)
Kingsbury	5	*	*	22	*	*
De Smet	5	*	*	22	*	*
Lake	17	*	*	101	5.9%	4.0%
Madison	17	*	*	101	5.9%	4.0%
Lawrence	50	*	*	246	7.3%	2.8%
Deadwood	17	*	*	73	*	*
Spearfish	33	*	*	173	8.7%	3.7%
Lincoln	17	*	*	74	*	*
Canton	17	*	*	74	*	*
Lyman	28	*	*	128	3.1%	2.6%
Kennebec	7	*	*	23	*	*
Lower Brule	21	*	*	105	3.8%	3.1%
Marshall	9	*	*	33	*	*
Britton	9	*	*	33	*	*
McCook	14	*	*	56	*	*
Salem	14	*	*	56	*	*
McPherson	#	*	*	22	*	*
Eureka	#	*	*	13	*	*
Leola	0	*	*	9	*	*
Meade	41	*	*	216	5.1%	2.5%
Faith	#	*	*	25	*	*
Sturgis	#	*	*	191	5.2%	2.7%
Miner	#	*	*	16	*	*
Howard	#	*	*	16	*	*
Minnehaha	398	8.3%	2.4%	1,941	4.6%	0.8%
Sioux Falls	398	8.3%	2.4%	1,941	4.6%	0.8%
Moody	20	*	*	84	*	*
Flandreau	20	*	*	84	*	*
Pennington	477	11.1%	2.5%	2,294	5.4%	0.8%
Ellsworth	60	*	*	297	7.1%	2.5%
Hill City	#	*	*	50	*	*
Rapid City	399	10.3%	2.6%	1,933	5.0%	0.8%
Wall	#	*	*	14	*	*
Perkins	8	*	*	59	*	*
Bison	#	*	*	18	*	*
Lemmon	#	*	*	41	*	*

⁽¹¹⁾ Percent of children who turned 12 months of age during the reporting period by/on their date of visit and were breastfed at least 12 months.

^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Table 23 (Continued)

Pediatric Nutrition Surveillance System Breastfed at 12 Months of Age Reporting Period 01/01/2005 to 12/31/2005

		2005 Data		Three Year Data (2003-2005) Breastfed at Least 12 Months(11)			
County		at Least 12 I					
Clinic	Total	Percent	Confidence	Total	Percent	Confidence	
	Records		Interval (±)	Records		Interval (±)	
Potter	5	*	*	28	*	*	
Hoven	5	*	*	28	*	*	
Roberts	73	*	*	277	3.6%	1.9%	
Sisseton	73	*	*	277	3.6%	1.9%	
Sanborn	4	*	*	26	*	*	
Woonsocket	4	*	*	26	*	*	
Shannon	131	22.9%	6.9%	729	8.1%	1.7%	
Kyle	41	*	*	194	8.2%	3.4%	
Manderson	4	*	*	49	*	*	
Pine Ridge	73	*	*	408	8.8%	2.4%	
Porcupine	13	*	*	78	*	*	
Spink	18	*	*	88	*	*	
Redfield	18	*	*	88	*	*	
Stanley	20	*	*	76	*	*	
Ft. Pierre	20	*	*	76	*	*	
Sully	#	*	*	8	*	*	
Onida	#	*	*	8	*	*	
Tripp	24	*	*	97	*	*	
Winner	24	*	*	97	*	*	
Turner	16	*	*	60	*	*	
Parker	10	*	*	29	*	*	
Viborg	6	*	*	31	*	*	
Union	6	*	*	68	*	*	
Elk Point	6	*	*	68	*	*	
Walworth	16	*	*	80	*	*	
Mobridge	#	*	*	70	*	*	
Selby	#	*	*	10	*	*	
Yankton	64	*	*	302	4.0%	1.9%	
Yankton	64	*	*	302	4.0%	1.9%	
Ziebach	#	*	*	18	*	*	
Dupree	#	*	*	18	*	*	
Hoolthy Doomle 2040		25%			25%		
Healthy People 2010	2 204		4.00/	44.000		0.40/	
Statewide PedNSS	2,294	11.5%	1.2%	11,000	5.2%	0.4%	
National 2004		17.6%					

⁽¹¹⁾ Percent of children who turned 12 months of age during the reporting period by/on their date of visit and were breastfed at least 12 months.

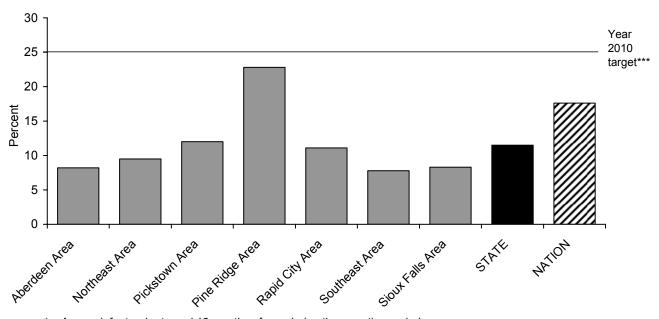
^{*} Data from counties with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Regional Breastfeeding Data – Breastfed at least 12 Months

When the breastfeeding data is examined regionally the statistics for being breastfed at least 12 months vary from 22.8 percent to 7.8 percent. The Pine Ridge Area region reflects the highest rate and the Southeast Area region of the state shows the lowest rate of breastfeeding for at least 12 months among the PedNSS infants who turned 12 months of age during the reporting period. Appendix B shows the counties making up each of these Regions.

Figure 29
2005 South Dakota PedNSS
Percentage of Infants Breastfed at Least 12 Months*
by Region**



- * Among infants who turned 12 months of age during the reporting period.
- ** Data for some regions not presented if <100 records are available for analysis after exclusions.
- *** Increase the proportion of mothers who breastfeed their babies at 1 year to 25%.

Table 24

Pediatric Nutrition Surveillance System
Breastfed at 12 Months of Age
Reporting Period 01/01/2005 to 12/31/2005

		2005 Data		Three Y	ear Data (20	03-2005)
Region**	Breastfed	at Least 12	Months(11)	Breastfed	at Least 12	Months(11)
	Total	Percent	Confidence	Total	Percent	Confidence
	Records		Interval (±)	Records		Interval (±)
Aberdeen Area	110	8.2%	4.5%	533	3.9%	1.4%
East Central	90	*	*	447	8.5%	2.3%
Huron-Redfield	70	*	*	336	4.5%	1.9%
Mitchell-Chamberlain	79	*	*	460	4.3%	1.6%
Northern Black Hills	91	*	*	462	6.3%	1.9%
Northeast Area	190	9.5%	3.7%	792	4.3%	1.2%
North Central	33	*	*	161	6.8%	3.4%
Northwest Area	64	*	*	303	6.6%	2.4%
Oahe Area	83	*	*	395	4.6%	1.8%
Pickstown Area	125	12.0%	5.1%	494	4.0%	1.5%
Pine Ridge Area	171	22.8%	6.0%	949	7.8%	1.5%
Rapid City Area	477	11.1%	2.5%	2,294	5.4%	0.8%
Southeast Area	102	7.8%	4.5%	521	4.0%	1.4%
Sioux Falls Area	398	8.3%	2.4%	1,941	4.6%	0.8%
Sioux Empire Area	66	*	*	307	6.2%	2.3%
South Central	98	*	*	410	2.7%	1.3%
Southern Black Hills	47	*	*	195	4.6%	2.5%
Healthy People 2010		25.0%			25.0%	
Statewide PedNSS	2,294	11.5%	1.2%	11,000	5.2%	0.4%
National 2004	_,,	17.6%		,		51170

⁽¹¹⁾ Percent of children who turned 12 months of age during the reporting period by/on their date of visit and were breastfed at least 12 months.

^{*} Data from regions with less than 100 records per year were not analyzed as the values do not meet standards of reliability or precision.

^{**} Counties by regions and regions by county conversion tables are in Appendix A and Appendix B.

Pediatric Nutrition Surveillance System
Statewide Summary of Indicators by Age and Race/Ethnicity
Reporting Period 01/01/2005 to 12/31/2005

Table 14

	I	Birth weigh	nt		Height ar	nd Weight		≥ 2 Ye	ears Overv	veight	Ane	mia	В	reastfeedir	ng
Age					Short	Under	Over		At Risk	Over				Duration	
		Low	High		Stature	Weight	Weight		% ≥85th	% ≥95th					
	Number	% <2,500	% >4,000	Number	% <5th	% <5th	% ≥95th	Number	& <95th		Number	% Low	Ever	6+ Mo.	12+ Mo.
White															
< 1 Year	3,543	8.0%	7.4%	5,549	9.4%	4.5%	10.5%	-	-	-	2,408	10.8%	Breast	feeding dat	a is for
1 Year				2,408	5.3%	2.8%	13.3%	-	-	-	2,621	7.5%	ages tl	hrough 23 r	nonths
2-4 Years				5,586	4.0%	2.6%	11.9%	5,586	17.4%	11.9%	4,531	5.4%			
Total				13,543	6.5%	3.4%	11.6%	5,586	17.4%	11.9%	9,560	7.3%	59.6%	22.3%	11.0%
< 1 Year	149	9.4%	6.0%	243	9.1%	4.1%	9.5%	1							
< i rear	149										1 1()()	1170/	Deces	f = = = 1: = = = = 1 = 1	- :- f
1 Year		J. T /0	0.070					-	-	-	102 124	14.7% *		feeding dat	
1 Year		3.470	0.070	114	3.5%	5.3%	13.2%	- - 268	-	-	124			feeding dat hrough 23 r	
1 Year 2-4 Years Total		3.470	0.078					- - 268 268	- - 16.0% 16.0%	- - 14.9% 14.9%		*			
2-4 Years	an or Alasi			114 268	3.5% 7.8%	5.3% 5.2%	13.2% 14.9%		- 16.0%	- 14.9%	124 226	*	ages tl	hrough 23 r	nonths
2-4 Years Total	an or Alasi			114 268	3.5% 7.8%	5.3% 5.2%	13.2% 14.9%		- 16.0%	- 14.9%	124 226	*	ages tl	hrough 23 r	months *
2-4 Years Total American India		kan Native		114 268 625	3.5% 7.8% 7.5%	5.3% 5.2% 4.8%	13.2% 14.9% 12.5%		- 16.0% 16.0%	- 14.9%	124 226 452	* * 11.7%	ages the 64.9%	hrough 23 r	* a is for
2-4 Years Total American India < 1 Year		kan Native		114 268 625	3.5% 7.8% 7.5%	5.3% 5.2% 4.8%	13.2% 14.9% 12.5%		- 16.0% 16.0%	- 14.9%	124 226 452	* 11.7%	ages the 64.9%	hrough 23 r * feeding dat	* a is for

^{*} Percentages are not calculated if <100 records are available for analysis after exclusions.

Table14 (Continued)

Pediatric Nutrition Surveillance System Statewide Summary of Indicators by Age and Race/Ethnicity Reporting Period 01/01/2005 to 12/31/2005

		Birth weigh	π		Height ar	nd Weight		≥ 2 Years Overweight		Ane	mıa	В	ng		
Age					Short	Under	Over		At Risk	Over				Duration	
		Low	High		Stature	Weight	Weight		% ≥85th	% ≥95th					
	Number	% <2,500	% >4,000	Number	% <5th	% <5th	% ≥95th	Number	& <95th		Number	% Low	Ever	6+ Mo.	12+ Mo.
Asian or Pac	ific Islande	r													
< 1 Year	59	*	*	95	*	*	*	-	-	-	44	*	Breast	feeding da	ta is for
1 Year				62	*	*	*	-	-	-	60	*	ages t	hrough 23	months
2-4 Years				87	*	*	*	87	*	*	66	*			
Total				244	7.8%	4.1%	10.7%	87	*	*	170	9.4%	*	*	*
All Other															
All Other < 1 Year	1	*	*	1	*	*	*	-	-	-	0	*	Breast	tfeeding da	ta is for
< 1 Year	1	*	*	1 0	*	*	*		- -	- -	0 0	*		tfeeding da	
	1	*	*	1 0 1		* *		- - 1	- - *	- - *				_	
< 1 Year 1 Year	1	*	*	1 0 1 2	*	*	*	- - 1 1	- - *			*		_	
< 1 Year 1 Year 2-4 Years Total	1 d Ethnic Or		*	1	*	*	*	- - 1 1		*		*		hrough 23	months
< 1 Year 1 Year 2-4 Years Total	1 d Ethnic Or 5,033		* 8.2%	1	*	*	*	- - 1 1		*		*	ages t	hrough 23	months *
< 1 Year 1 Year 2-4 Years Total All Races and		igins		1 2	* *	* *	* *	- 1 1	*	*	0 1 1	* *	ages t * Breast	hrough 23	months * ta is for
< 1 Year 1 Year 2-4 Years		igins		7,910	* * *	4.3%	* * *		*	*	0 1 1 3,390	* * *	ages t * Breast	trough 23	months * ta is for

^{*} Percentages are not calculated if <100 records are available for analysis after exclusions.

[#] South Dakota Department of Health policy does not permit releasing data with fewer than three events.

Appendices

Appendix A

South Dakota PedNSS Counties by Regions

County	Region
Aurora	Mitchell-Chamberlain
Beadle	Huron-Redfield
Bennett	Pine Ridge Area
Bon Homme	Pickstown Area
Brookings	East Central
Brown	Aberdeen Area
Brule	Mitchell-Chamberlain
Buffalo	South Central
Butte	Northwest Area
Charles Mix	Pickstown Area
Clark	Northeast Area
Clay	Southeast Area
Codington	Northeast Area
Corson	North Central
Custer	Southern Black Hills
Davison	Mitchell-Chamberlain
Day	Aberdeen Area
Deuel	Northeast Area
Dewey	Northwest Area
Douglas	Pickstown Area
Edmunds	North Central
Fall River	Southern Black Hills
Faulk	North Central
Grant	Northeast Area
Gregory	Pickstown Area
Haakon	South Central
Hamlin	East Central
Hand	Oahe Area
Hanson	Mitchell-Chamberlain
Harding	Northwest Area
Hughes	Oahe Area
Hutchinson	Pickstown Area
Hyde	Oahe Area
Jackson	Pine Ridge Area
Jerauld	Mitchell-Chamberlain
Jones	South Central
Kingsbury	East Central
Lake	Sioux Empire Area
Lawrence	Northern Black Hills
Lincoln	Sioux Empire Area
Lyman	South Central
Marshall	Aberdeen Area

Appendix A (Continued)

South Dakota PedNSS Counties by Regions

County	Region
-	•
McCook	Sioux Empire Area
McPherson	North Central
Meade	Northern Black Hills
Mellette	South Central
Miner	Sioux Empire Area
Minnehaha	Sioux Falls Area
Moody	East Central
Pennington	Rapid City Area
Perkins	Northwest Area
Potter	Oahe Area
Roberts	Northeast Area
Sanborn	Mitchell-Chamberlain
Shannon	Pine Ridge Area
Spink	Huron-Redfield
Stanley	Oahe Area
Sully	Oahe Area
Tripp	South Central
Turner	Sioux Empire Area
Union	Southeast Area
Walworth	North Central
Yankton	Southeast Area
Ziebach	Northwest Area

Appendix B

South Dakota PedNSS Regions by County

Region	County
Region	County
Aberdeen Area	Brown
Aberdeen Area	Day
	Marshall
East Central	Brookings
Last Certifal	Hamlin
	Kingsbury
	Moody
Huron-Redfield	Beadle
Hulon-Redileid	Spink
Mitchell-Chamberlain	Aurora
WillCheil-Chamberlain	Brule
	Davison
	Hanson
	Jerauld Sanborn
North Control	
North Central	Corson
	Edmunds Faulk
	McPherson
Nowth and Aven	Walworth
Northeast Area	Clark
	Codington
	Deuel Grant
Nambana Dia da Lilla	Roberts
Northern Black Hills	Lawrence
Ni authorra de Ausa	Meade
Northwest Area	Butte
	Dewey
	Harding
	Perkins
Only Asses	Ziebach
Oahe Area	Hand
	Hughes
	Hyde
	Potter
	Stanley
District and Area	Sully
Pickstown Area	Bon Homme
	Charles Mix
	Douglas
	Gregory
	Hutchinson

Appendix B (Continued)

South Dakota PedNSS Regions by County

Region	County	
Pine Ridge Area	Bennett	
	Jackson	
	Shannon	
Rapid City Area	Pennington	
Sioux Empire Area	Lake	
	Lincoln	
	McCook	
	Miner	
	Turner	
Sioux Falls Area	Minnehaha	
South Central	Buffalo	
	Haakon	
	Jones	
	Lyman	
	Tripp	
Southeast Area	Clay	
	Union	
	Yankton	
Southern Black Hills	Custer	
	Fall River	